

FIG. 1

SEQ ID 1 D58-BG7

1 GCACAACTT GCTATCAACT TGGTCACATC TATGTTGGGT
61 CATTGTTGC ATCATTTAC ATGGGCTCCG GCCCGGGGGG TTAACCCGGGA GGATATTGAC
121 TTGGAGGAGA GCCCTGGAAC AGTAACCTAC ATGAAAAATC CAATACAAGC TATTCAACT
181 CCAAGATTGC CTGGCACACTT GTATGGACGT GTGCCAGTGG ATATGTAA

SEQ ID 2

AQLAINLVTSMGLGHLLHHFTWAPAPGVNPEDIDLEESPGTVTYMKNPIQAIPTPRLPAHLYGRVPVDM

FIG. 2

SEQ ID 3 D58-AB1

1 GCACAACT TGCTATCAAC TTGGTCACAT CTATGTTGGG
61 CATTTGTT CATCATTTA CGTGGGCTCC GCCCCGGGG GTTAACCCGG AGAATATTGA
121 CCTGGAGGAG AGCCCTGGA CAGTAACCTA CATGAAAAT CCAATACAAG CTATTCCAC
181 TCCAAGATTG CCTGCACACT TGTATGGACG TGTGCCAGTG GATATGTAA

SEQ ID 4

AQLAINLVTSMGLGHLLHHFTWAPPPGVNPENIDLEESPGTVTYMKNPIQAIPTPRLPAHLYGRVPVDM

FIG. 3

SEQ ID 5 D186-AH4

1 ATGAATTAT TCATTGCAAG TGGAACACCT TTCAATTGCT
61 CATATGATCC AAGGTTTCAG TTTTGCAACT ACGCCAATG AGCCTTTGGA TATGAAACAA
121 GGTGGGGTT TAACTTTACC AAAAGAAGACT GATGTTGAAG TGCTAATTAC ACCTCGCCTT
181 CCTCCTACGC TTTATCAATA TTAA

SEQ ID 6

MNYSLQEHLIAHMIQGFSFATTTNEPLDMKQGVGLTPKKTDVEVLITPRLPPTLYQY

FIG. 4

SEQ ID 7 D58-BE4

1 GCACAACTT GCTATCAACT TGGTCACATC TATGTTGGGT
61 CATTGTTCA TCATTTACA TGGGCTCCG CCCCCGGGGT TAACCCGGAG GATATTGACT
121 TGGAGGAGAG CCCTGGAACA GTAACCTACA TGA

SEQ ID 8

AQLAINLVTSMGLHFIILHGLRPRGLTRRIILTWRRALEQ

FIG. 5

SEQ ID 9 D56-AH7

1 GAAGGATTG GCTGTCGAA TGGTTGCCTT GTCATTGGGA
61 TGTATTATTC AATGTTTGAA TTGGCAACGA ATCGGCAGA ATTGGTTGA TATGACTGAA
121 GGAACCTGGAC TTACTTTGCC TAAAGCTCAA CCTTTGGTGG CCAAGTGTAG CCCACGACCT
181 AAAATGGCTA ATCTTCTCTC TCAGATTGAA

SEQ ID 10

EGLAVRMVALSLGCIIQCFDWQRIGEELVDMTEGTGLTPKAQPLVAKCSPRPKMANLLSQI

FIG. 6

SEQ ID 11 D13a-5

1 GAAGGATTG GCTATTCGAA TGGTTGCATT GTCATTGGGA
61 TGTATTATTC AATGCTTGAA TTGGCAACGA CTTGGGGAAAG GATTGGTGA TAAGACTGAA
121 GGAACGGAC TTACTTTGCC TAAAGCTCAA CCTTTAGTGG CCAAGTGTAG CCCACGACCT
181 ATAATGGCTA ATCTTCTTTC TCAGATTGAA

SEQ ID 12

EGLAIRMVALSLGCIIQCFDWQRLGEGLVDKTEGTGLTPKAQPLVAKCSPRPIMANLLSQI

FIG. 7

SEQ ID 13 D56-AG10

1 ATAGGTTTT GCGACTTTAG TGACACATCT GACTTTGGT
61 CGCTTGCTTC AAGGTTTGAA TTTTAGTAAG CCATCAAACA CGCCAATTGA CATGACAGAA
121 GGCCTAGGCG TTACTTTGCC TAAGGTTAAAT CAAGTTGAAG TTCTAATTAC CCCTCGTTA
181 CCTTCTAAGC TTATTTATT TTGA

SEQ ID 14

IGFATLVTHTFGRLLQGFDFSKPSNTPIDMTEGVGVTLPKVNQVEVLITPRLPSKLYLF

FIG. 8

SEQ ID 15 D35-33

1 ATAGGCTTT GCGACTTTAG TGACACATCT GACTTTGGT
61 CGCTTGCTTC AAGGTTTGAA TTTTAGTAAG CCATCAAACA CGCCAATTGA CATGACAGAA
121 GGCCTAGGCG TTACTTTGCC TAAGGTTAAAT CAAGTTGAAG TTCTAATTAC CCCTCGTTA
181 CCTTCTAAGC TTATTTATT

SEQ ID 16

IGFATLVTHTFGRLLQGFDFSKPSNTPIDMTEGVGVTLPKVNQVEVLITPRLPSKLYL

FIG. 9

SEQ ID 17 D34-62

1 ATAAATTT GCGACTTTAG TGACACATCT GACTTTGGT
61 CGCTTGCTTC AAGGTTTGAA TTTTAGTAAG CCATCAAACA CGCCAATAGA CATGACAGAA
121 GGCCTAGGCG TTACTTTGCC TAAGGTTAAAT CAAGTTGAAG TTCTAATTAG CCCTCGTTA
181 CCTTCTAAGC TTATGTATT CTGA

SEQ ID 18

INFATLVTHTFGRLLQGFDFSTPSNTPIDMTEGVGVTLPKVNQVEVLISPRLPSKLYVF

FIG. 10

SEQ ID 19 D56AA7

1 ATTATACTT GCATTGCCAA TTCTTGGCAT CACTTTGGGA
61 CGTTGGTTC AGAACCTTGAA GCTGTTGCCT CCTCCAGGCC AGTCGAAGCT CGACACCACA
121 GAGAAAGGTG GACAGTTCAAG TCTCCACATT TTGAAGCATT CCACCATTGT GTTGAAACCA
181 AGGTCTTCT GA

SEQ ID 20

IILALPILGITLGRLVQNFEPLLPPPGQS KLDTTEKGQFSLHILKHSTIVLKPRSF

FIG. 11

SEQ ID 21 D56-AE1

1 ATTATACTT GCATTGCCAA TTCTTGGCAT TACTTTGGGA
61 CGTTTGGTTC AGAACATTGAG CTCAGTTGCCT CCTCCAGGCC AGTCGAAGCT CGACACCACA
121 GAGAAAGGTG GACAGTTCAAG TCTCCATATT TTGAAGCATT CCACCATTGT GTTGAACCCA
181 AGGTCTTGCT **GA**

SEQ ID 22

IILALPILGITLGRLVQNFEELLPPPGOSKLDTEKGQFSLHILKHSTIVLKPRSC

FIG. 12

SEQ ID 23 D35-BB7

1 TATTGCACTT GGGTTGCAT CAATGGAAC TGCATTGTCA
61 AATCTCTT ATGCATTGAG TTGGGAGTTA CTTTTGGAA TGAAAAAAGA AGACATTGAC
121 ACAAAACGCCA GGCTGGAAT TACCATGCAT AAGAAAAACG AACTTTATCT TATCCCTAA
181 AATTATCTAT **AG**

SEQ ID 24

IALGVASMEALSNLLYAFDWELPFGMKKEDIDTNARPGITMHKKNELIPKNYLP SKLYLF

FIG. 13

SEQ ID 25 D177-BA7

1 ATTGCACTTG GGGTTGCATC CATGGAACCT
121 GCTTGTCAA ATCTTCTTA TGCAATTGAT TGGGAGTTAC CTTACGGAGT GAAAAAAAGAA
181 AACATGACA CAAATGTCAG GCCTGGAATT ACCATGCATA AGAAAAAACGA ACTTTGCCTT
241 ATCCCTAGAA ATTATCTATA **G**

SEQ ID 26

IALGVASMEALSNLLYAFDWELPYGVKKENIDTNVRPGITMHKKNELCLIPRNYL

FIG. 14

SEQ ID 27 D56A-AB6

1 GGTATTGAC TTGGGGTTGC ATCCATGGAA CTGCTTTGT CAAATCTCT TTATGCATTT
61 GATTGGGAGT TGCTTATGG AGTAAAAAAA GAAGACATCG ACACAAACGT TAGGCCCTGGA
121 ATTGCATGC ACAAGAAAAA CGAACCTTGC CTTGTCCCAA AAAATTATTT **ATAA**

SEQ ID 28

IALGVASMEALSNLLYAFDWELPYGVKKEDIDTNVRPGIAMHKKNELCLVPKNYL

FIG. 15

SEQ ID 29 D144-AE2

1 ATT GCACTGGGG TTGCATCCAT GGAACATTGCT
61 TTGTCAAATC TTCTTATGC ATTTGATTGG GAGTTGCCCTT ATGGAGTGAA AAAAGAAGAC
121 ATCGACACAA ACGTAGGCC TGGAAATTGCC ATGCACAAGA AAAACGAAC TTGCCTTGT
181 CCAAAAAAT TATTTATAAA TTATATTGGG ACGTGGATCT CATGCTAG

SEQ ID 30

IALGVASMEALSNLLYAFDWELPYGVKKEDIDTNVRPGIAMHKKNELCLVPKKLFINYIGTWISC

FIG. 16

SEQ ID 31 D56-AG11
1 ATTCGTTT GGTTTAGCTA ATGCTTATTT GCCATTGGCT
61 CAATTACTTT ATCACTTGAA TTGGAAACTC CCCACTGGAA TCAAACCAAG CGACTTGGAC
121 TTGACTGAGT TGGTGGAGT AACTGCCGCT AGAAAAAGTG ACCTTACTT GGTTGCGACT
181 CCTTATCAAC CTCCCTCAAAA CTGA
SEQ ID 32
ISFGLANAYLPLAQLLYHFDWELPTGIKPSDLTLTELVGVTAAARKSDLYLVATPYQPPQN

FIG. 17

SEQ ID 33 D179-AA1
1 ATTCGTTT GGTTTAGCTA ATGCTTATTT GCCATTGGCT
61 CAATTACTAT ATCACTTCGA TTGGAAACTC CCTGCTGGAA TCGAACCAAG CGACTTGGAC
121 TTGACTGAGT TGGTGGAGT AACTGCCGCT AGAAAAAGTG ACCTTACTT GGTTGCGACT
181 CCTTATCAAC CTCCCTCAAAA GTGA
SEQ ID 34
ISFGLANAYLPLAQLLYHFDWKLPAGIEPSDLTLTELVGVTAAARKSDLYLVATPYQPPQK

FIG. 18

SEQ ID 35 D56-AC7
1 ATGCTTATTT GGTTTAGCTA ATGTTGGACA ACCTTGTAGCT
61 CAGTTACTTT ATCACTTCGA TTGGAAACTC CCTAATGGAC AAAGTCATGA GAATTCGAC
121 ATGACTGAGT CACCTGGAAT TTCTGCTACA AGAAAGGATG ATCTTGTGTTT GATTGCCACT
181 CCTTATGATT CTTATTAAATCCAGTCTA TATCATCTAT ATGACTCTAA TAATTGTATG
361 GGA
SEQ ID 36
MLFGLANVGQPLAQLLYHFDWKLPNGQSHENFDMTESPGISATRKDDLVLIAATPYDSY

FIG. 19

SEQ ID 37 D144-AD1
1 ATGC TATTTGGTTT AGCTAATGTT
61 GGACAAACCTT TAGCTCAGTT ACTTTATCAC TTCGATTGGA AACTCCCTAA TGGACAAACT
121 CACCAAAATT TCGACATGAC TGAGTCACCT GGAATTCTG CTACAAGAAA GGATGATCTT
181 ATTTGATTG CCACTCCTGC TCATTCTTGA
SEQ ID 38
MLFGLANVGQPLAQLLYHFDWKLPNGQTHQNFDMTESPGISATRKDDLILIATPAHS

FIG. 20

SEQ ID 39 D144-AB5
1 TTAT TATTCGGTTT AGTTAATGTA
61 GGACATCCCT TAGCTCAATT GCTTTATCAC TTCGATTGGA AGACTCTTCC TGGGATAAGT
121 TCAGATAGTT TCGACATGAC TGAAACAGAT GGAGTAACCT CGGAAAGAAA GGATGATCTT
181 TGGTTAATTG CTACTCCTTT TGGTCTCAAT TAA
SEQ ID 40
LLFGLNVGVGHPLAQLLYHFDWKTLPGISSLDFDMTEDGVTAGRKDDLCLIATPFGLN

FIG. 21

SEQ ID 41 D181-AB5
1 A TGTCGTTGG TTAGTTAAC ACTGGGCATC CTTAGCTCA
61 GTTGCTCTAT TTCTTTGACT GAAATTCCC TCATAAGGTT ATGCAGCTG ATTTTCACAC
121 TACTGAAACA AGTAGAGTTT TTGCAGCAAG CAAAGATGAC CTCTACTTGA TTCCAACAAA
181 TCACATGGAG CAAGAGTAG
SEQ ID 42
MSFGLVNTGHPLAQQLYFFDWKFPHKVNAADFHTTETSRVFAASKDDLYLIPTNHMEQE

FIG. 22

SEQ ID 43 D73-AC9
1 AT GTCGTTGGT TTAGTTAAC CAGGGCATCC TTTAGCCAG
121 TTGCTCTATT GCTTGACTG GAAACTCCCT GACAAGGTTA ATGCAAATGA TTTTCGCACT
181 ACTGAAACAA GTAGAGTTT TGCAAGCAAGC AAAGATGACC TCTACTTGAT TCCCACAAAT
241 CACAGGGAGC AAGAATAG
SEQ ID 44
MSFGLVNTGHPLAQQLYCFDWKLPEVKVNAANDFRTTETSRVFAASKDDLYLIPTNHREQE

FIG. 23

SEQ ID 45 D56-AC12
1 ATGCAATTT GGTTGGCTC TTGTTACTCT GCCATTGGCT
61 CATTGCTTC ACAATTGAA TTGGAAACTT CCCGAAGGAA TTAATGCAAG GGATTTGGAC
121 ATGACAGAGG CAAATGGGAT ATCTGCTAGA AGAGAAAAAG ATCTTTACTT GATTGCTACT
181 CCTTATGTAT CACCTCTTGA TTAA
SEQ ID 46
MQFGLAIVTPLPLAHLLNFDWKLPDKVNANDFRTTETSRVFAASKDDLYLIPTNVSPLD

FIG. 24

SEQ ID 47 D58-AB9
1 ATGACTTAT GCATTGCAAG TGGAACACCT AACAAATGGCA
61 CATTGATCC AGGGTTCAA TTACAGAACT CCAACTGATG AGCCCTTGGA TATGAAAGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAT CCTGTGAAAG TGATAATTAC GCCTCGCTG
181 GCACCTGAGC TTTATTA
SEQ ID 48
MTYALQVEHLTMAHLIQQGFNYRPTDEPLDMKEGAGITIRKVNPKVIITPRLAPELY

FIG. 25

SEQ ID 49 D56-AG9
1 ATGACTTAT GCATTGCAAG TGGAACACCT AACAAATGGCA
61 CATTAAATCC AGGGTTCAA TTACAAAAT CCAATGACG AGGCCTTGGA TATGAAAGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAT CCTGTGAAAC TGATAATTAC GCCTCGCTG
181 GCACCTGAGC TTTATTA
SEQ ID 50
MTYALQVEHLTMAHLIQQGFNYKTPNDEALDMKEGAGITIRKVNPKVIIAPRLAPELY

FIG. 26

SEQ ID 51 D56-AG6

1 ATGACTTAT GCATTGCAAG TGGAACACCT AACAAATGGCA
61 CATTAAATCC AGGGTTCAA TTACAAAACT CCAAATGACG AGCCCTTGGGA TATGAAGGAA
121 GGTGCAGGCA TAACAATACG TAAGGTAAAT CCTGTGGAAC TGATAATAAC GCCTCGCCTG
181 GCACCTGAGC TTTACTAA

SEQ ID 52

MTYALQVEHLTMAHLIQQGFNYKTPNDEALDMKEGAGITIRKVNPVELIITPRLAPELY

FIG. 27

SEQ ID 53 D35-BG11

1 ATGACTTAT GCATTGCAAG TGGAACACCTT AACAAATGGCA
61 CATTGATCC AAGGTTCAA TTACAGAACT CCAAATGACG AGCCCTTGGGA TATGAAGGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGTGGAAC TGATAATAGC GCCTCGCCTG
181 GCACCTGAGC TTTATTAA

SEQ ID 54

MTYALQVEHLTMAHLIQQGFNYRTPNDEPLDMKEGAGITIRKVNPVELIIAPRLAPELY

FIG. 28

SEQ ID 55 D35-42

1 ATGACTTAT GCATTGCAAG TGGAACACCTT AACAAATGGCA
61 CATTGATCC AAGGTTCAA TTACAGAACT CCAAATGACG AGCCCTTGGGA TATGAAGGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGTGGAAC TGATAATAGC GCCCCTGGCA
181 CCTGAGCTTT ATTAA

SEQ ID 56

MTYALQVEHLTMAHLIQQGFNYRTPNDEPLDMKEGAGITIRKVNPVELIIAPRLAPELY

FIG. 29

SEQ ID 57 D35-BA3

1 ATGACTTAT GCATTGCAAG TGGAACACCTT AACAAATGGCA
61 CATTGATCC AAGGTTCAA TTACAGAACT CCAAATGACG AGCCCTTGGGA TATGAAGGAA
121 GGTGCAGGCA TAACTATACG TAAGGTAAAT CCTGCGGAAC TGATAATAGC GCCTCGCCTG
181 GCACCTGAGC TTTATTAA

SEQ ID 58

MTYALQVEHLTMAHLIQQGFNYRTPNDEPLDMKEGAGITIRKVNPTELIIAPRLAPELY

FIG. 30

SEQ ID 59 D34-57

1 ATGACTTAT GCATTACAAG TGGAACACCT AACAAATAGCA
61 CATTGATCC AGGGTTCAA TTACAAAACT CCAAATGACG AGCCCTTGGGA TATGAAGGAA
121 GGTGCAGGAT TAACCATAACG TAAAGTAAAT CCTGTAGAAG TGACAACTAC GGCTCGCCTG
181 GCACCTGAGC TTTATTAA

SEQ ID 60

MTYALQVEHLTIAHLIQQGFNYKTPNDEPLDMKEGAGLTIRKVNPVEVTTARLAPELY

FIG. 31

SEQ ID 61 D34-52
1 ATGACTTAT GCATTACAAG TGGAACACCT AACAAATAGCA
61 CATTGATCC AGGGTTCAA TTACAAAACT CCAAATGACG AGCCCTTCCA TATGAAGGAA
121 GGTGCAGGAT TAACTATAACG TAAAGTAAAT CCTGTAGAAG TGACAATTAC GGCTCGCCTG
181 GCACCTGAGC TTTATTA
SEQ ID 62
MTYALQVEHLTIAHLIQGFNYKTPNDEPLDMKEGAGLTIRKVN PVEVTITARLAPELY

FIG. 32

SEQ ID 63 D34-25
1 ATGACTTAT GCATTACAAG TGGAACACCT AACAAATAGCA
61 CATTGATCC AGGGTTCAA TTACAAAACT CCAAATGACG AGCCCTTCCA TATGAAGGAA
121 GGTGCAGGAT TAACTATAACG TAAAGTAAAT CCTGTAGAAG TGACAATTAC GGCTCGCCTG
181 GCACCTGAGC TTTATTA
SEQ ID 64
MTYALQVEHLTIAHLIQGFNYKTPNDEPLDMKEGAGLTIRKVN PVEVTITARLAPELY

FIG. 33

SEQ ID 65 D56AD10
1 TATAGCCTT GGACTTAAGG TTATCCGAGT AACATTAGCC
61 AACATGTTGC ATGGATTCAA CTGAAATTA CCTGAAGGTA TGAAGCCAGA AGATATAAGT
121 GTGGAAGAAC ATTATGGCT CACTACACAT CCTAAGTTTC CTGTTCTGT GATCTGGAA
181 TCTAGACTT CTTAGATCT CTATCCCCC ATCACTTAA
SEQ ID 66
YSLGLKVI RVT LANMLHG F N W K L P E G M K P E D I S V E E H Y G L T T H P K F P V P V I L E S R L S D L Y S P I T

FIG. 34

SEQ ID 67 D56-AA11
1 ATACAGTCTT GGATTTCGTA TAATTAGGGC AACTTTAGCT
61 AACTTGTGC ATGGATTCAA CTGGAGATTG CCTAATGGTA TGAGTCCAGA AGACATTAGC
121 ATGGAAGAGA TTATGGGCT AATTACACAC CCAAAGTCG CACTTGACGT GATGATGGAG
181 CCTCGACTTC CCAACCACAT TTACAAATAG
SEQ ID 68
YSLGIRIIRATLANLLHG F N W R L P N G M S P E D I S M E E I Y G L I T H P K V A L D V M M E P R L P N H L Y K

FIG. 35

SEQ ID 69 D177-BD5
1 ATTAATTTT CAATACCACT TGTTGAGCTT
121 GCACTTGCTA ATCTATTGTT TCATTATAAT TGGTCACCTC CTGAAGGGAT GCTAGCTAAG
181 GATGTTGATA TGGAGAACG TTGGGGATT ACCATGCACA AGAAATCTCC CCTTGCTTA
241 GTAGCTCTC ATTATACTG TTGA
SEQ ID 70
INFSIPLVELALANLLFHYNWSLPEGMLAKDVDMEEALGITMHKKSPLCLVASHYTC

FIG. 36

SEQ ID 71 D56A-AG10
1 ATGCAACTTG GGCTTTATGC ATTGGAAATG GCTGTGGCCC ATCTTCTTCA TTGTTTTACT
61 TGGGAATTGC CAGATGGTAT GAAACCAAGT GAGCTTAAAA TGGATGATAT TTTTGGACTC
121 ACTGCTCCAA AAGCTAATCG ACTCGTGGCT GTGCCTACTC CACGTTGTT GTGTCCTT
181 TATTAATTGA

SEQ ID 72
MQLGLYALEMAVAHLLHCFTWELPDGMKPSLKMDIFGLTAPKANRLVAVPTPRLCPLY

FIG. 37

SEQ ID 73 58-BC5
1 ATGCAACTT GGGCTTTATG CATTAGAAAT GGCAGTGGCC
61 CATCTCTTC TTGCTTTAC TTGGGAATTG CCAGATGGTA TGAAACCAAG TGAGCTTAAA
121 ATGGATGATA TTTTGGACT CACTGCTCCA AGAGCTAATC GACTCGTGGC TGTGCCTAGT
181 CCACGTTGT TGTGCCACT TTATTAA

SEQ ID 74
MQLGLYALEMAVAHLLCFTWELPDGMKPSLKMDIFGLTAPRANRLVAVPSPRLCPLY

FIG. 38

SEQ ID 75 D58-AD12
1 ATGCAACTT GGGCTTTATG CATTGGAAAT GGCTGTGGCC
61 CATCTCTTC ATTGTTTAC TTGGGAATTG CCAGATGGTA TGAAACCAAG TGAGCTTAAA
121 ATGGATGATA TTTTGGACT CACTGCTCCA AGAGCTAATC GACTCGTGGC TGTGCCTACT
181 CCACGTTGT TGTGTCCCCCT TTATTAA

SEQ ID 76
MQLGLYALEMAVAHLLHCFTWELPDGMKPSLKMDIFGLTAPRANRLVAVPTPRLCPLY

FIG. 39

SEQ ID 77 D56-AC11
1 ATGCTTTGG AGTGCAGTA TAGTGCAGCT CAGCTACCTA
61 ACTTGTATTT ATAGATTCCA AGTATATGCT GGGTCTGTGT TCAGAGTAGC ATGA

SEQ ID 78
MLWSASIVRVSYLTCIYRFQVYAGSVFRVA

FIG. 40

SEQ ID 79 D35-39
1 ATGCTTTGG AGTGCAGTA TAGTGCAGCT CAGCTACCTA
61 ACTTGTATTT ATAGATTCCA AGTATATGCT GGGTCTGTGT TCAGAGTAGC ATGA

SEQ ID 80
MLWSASIVRVSYLTCIYRFQVYAGSVFRVA

FIG. 41

SEQ ID 81 D58-BH4

1 ATGCTTGG AGTCGAGTA TAGTGCACGT CAGCTACCTA
61 ACCTGTATTT ATAGATTCCA AGTATATGCT GGGTCTGTGT TCAGAGTAGC ATGA

SEQ ID 82

MLWSASIVRVSYLTICYRFQVYAGSVFRVA

FIG. 42

SEQ ID 83 D177-BD7

1 ATTAATTTTT CAATACCACT TGGTGGAGCTT GCACTTGCTA ATCTATTGTT TCATTATAAT
61 TGGTCACCTC CTGAGGGGAT GCTACCTAAC GATGTTGATA TGGAAGAACG TTTGGGGATT
121 ACCATGCACA AGAAATCTCC CCTTGCTTA GTAGCTTCTC ATTATAACTT GTTGTGA

SEQ ID 84

INFSIPLVELALANLLFHYNWSSLPEGMLPKDVDMEALGITMHKSPCLVASHYNLL

FIG. 43

SEQ ID 85

D176-BF2

1 AT ATCATTGGT TTGGCTAATG TTTATTTGCC ACTAGCTCAA
121 TTGTTATATC ATTTGATTG GAAACTCCCT ACTGGAATCA ATTCAAGTGA CTTGGACATG
181 ACTGAGTCGT CAGGACTAAC TTGTGCTAGA AAGAGTGATT TATACTGAC TGCTACTCCA
241 TATCAACTTT CTCAGAGTG A

SEQ ID 86

GISFGLANVYLPLAQQLLYHFDWKLPPTGINSSDLMTESSGVTCAKSDLYLTATPYQLSQE

FIG. 44

SEQ ID 87 D56-AD6

1 ATGCTTGG AGTCGAGTA TAGTGCACGT CAGCTACCTA
61 ACTTGATTT ATAGATTCCA AGTATATGCT GGGTCTGTGT CCAGAGTAGC ATGA

SEQ ID 88

MLWSASIVRVSYLTICYRFQVYAGSVSRVA

FIG. 45

SEQ ID 89 D73A-AD6

1 CT GAATTTGCA ATGTTAGAGG CAAAAATGGC ACTTGCATTG
121 ATTCTACAAAC ACTATGCTTT TGAGCTCTCT CCATCTTATG CACATGCTCC TCATACAATT
181 ATCACTCTGC AACCTCAACA TGGTGCTCCT TTGATTTGC GCAAGCTGTA G

SEQ ID 90

LNFAMLEAKMALALILQHYAFELSPSYAHAPHTIITLQPQHQAPLILRKL

FIG. 46

SEQ ID 91 D70A-BA11
1 CT GAATTTGCA ATGTTAGAGG CAAAAATGGC ACTTGCATTG
121 ATTCTACAAC ACTATGCTT TGAGCTCTCT CCATCTTATG CACACGCTCC TCATACAATT
181 ATCACTCTGC AACCTCAACA TGGTGCTCCT TTGATTTGC GCAAGCTGTA G
SEQ ID 92
LNFAMLEAKMALALILQHYAFELSPSYAHAPHTIITLQPQHGAPlILRKL

FIG. 47

SEQ ID 93 D70A-BB5
1 AA TAATTTGCA ATGTTGGAAA CTAAGATTGC CTTAGCAATG
121 ATCCTACAGC GTTTGCTTT CGAGCTTCT CCATCTTACG CTCATGCACC TACTTATGTC
181 GTCACTCTTC GACCTCAGTG TGGTGCTCAC TTAATCTTGC AAAAATTATAA GGTCTTAAT
241 CTGGATTTC CATTATTGAG TAGTGCTAA TAAATCTTCT CTATCACTAT TTTTCCATCT
301 TTCA
SEQ ID 94
NNFAMLETKIALAMILQRFAFELSPSYAHAPTYVVTLPQCGAHILQKL

FIG. 48

SEQ ID 95 D70A-AB5
1 AGCGAAGGGG TGGCAAAGGC AACAAAGGGG AAAATGACAT ATTTTCCATT TGGTGCAGGA
61 CCGCGAAAAT GCATTGGCA AAACCTCGG ATTTTGAAG CAAAAATGGC TATAGCTATG
121 ATTCTACAAC GCTTCTCCTT CGAGCTCTCC CCATCTTATA CACACTCTCC ATACACTGTG
181 GTCACTTTGA AACCCAATA TGGTGCTCCC CTAATAATGC ACAGGGCTGTA GTCCTGTGAG
241 AATATGCTAT CCGAGGAATT CAGTTCCCT
SEQ ID 96
QNFAILEAKMAIAMILQRFSFELSPSYTHSPYTvvTLKPKYGAPlIMHRL

FIG. 49

SEQ ID 97 D70A-AA8
1 AGCGAAGGGG TGGCAAAGGC AACAAAGGGG AAAATGACAT ATTTTCCATT TGGTGCAGGA
61 CCGCGAAAAT GCATTGGCA AAACCTCGG ATTTTGAAG CAAAAATGGC TATAGCTATG
121 ATTCTACAAC GCTTCTCCTT CGAGCTCTCT CCATCTTATA CACACTCTCC ATACACTGTG
181 GTCACTTTGA AACCCAATA TGGTGCTCCC CTAATAATGC ACAGGGCTGTA GTCCTGT
SEQ ID 98
QNFAILEAKMAIAMILQRFSFELSPSYTHSPYTvvTLKPKYGAPlIMHRL

FIG. 50

SEQ ID 99 D70A-AB8
1 C AAAATTTGCA CATGTTAGAA GCAAAGATGG CTCTGCTAT GATCCTGCAA
121 CGCTTCTCTT TTGAAGTGT CTCGCTTAT GCACATGCC CTCAGTCCAT ATTAACCGT
181 CAGCCACAAT ATGGTGCTCC ACTTATTTTC CACAAGCTAT AA
SEQ ID 100
QNFAILEAKMALSILQRFSFELSPSYAHAPQSILTVQPQYGAPlFHKL

FIG. 51

SEQ ID 101 D70A-BH2
1 AT AAACTTGCA ATGACAGAAAG CGAAGATGGC TATGGCTATG
121 ATTCTGCAAC GCTTCTCCTT TGAGCTATCT CCATCTTACA CACATGCTCC ACAGTCTGTA
181 ATAACATATGC AACCCAATA TGGTGCTCCT CTTATATTGC ACAAATTGTA A
SEQ ID 102
INFAMAEAKMAMAMILQRFSELPSPSYTHAPQSVITMQPQYGAPlLHKL

FIG. 52

SEQ ID 103 D70A-AA4
1 AT AAACTTGCA ATGGCAGAAAG CGAAGATGGC TATGGCTATG
121 ATTCTGCAAC GCTTCTCCTT TGAGCTATCT CCATCTTACA CACATGCTCC ACAGTCTGTA
181 ATAACATATGC AACCCAATA TGGTGCTCCT CTTATATTGC ACAAATTGTA A
SEQ ID 104
INFAMAEAKMAMAMILQRFSELPSPSYTHAPQSVITMQPQYGAPlLHKL

FIG. 53

SEQ ID 105 D70A-BA1
1 CA AAACCTTGCA ATGATGGAAG CAAAAATGGC AGTAGCTATG
121 ATACTACAAA AATTTCCCTT TGAACATATCC CCTTCTTATA CACATGCTCC ATTTGCAATT
181 GTGACTATTc ATCCTCAGTA TGGTGCTCCT CTGCTTATGC GCAGACTTTA A
SEQ ID 106
QNFAMMEAKMAVAMILQKFSFELPSYTHAPFAIVTIHPQYGAPlLMRRL

FIG. 54

SEQ ID 107 D70A-BA9
1 CA AAACCTTGCA ATGATGGAAG CAAAAATGGC AGTAGCTATG
121 ATACTACATA AATTTCCCTT TGAACATATCC CCTTCTTATA CACATGCTCC ATTTGCAATT
181 GTGACTATTc ATCCTCAGTA TGGTGCTCCT CTGCTTATGC GCAGACTTTA A
SEQ ID 108
QNFAMMEAKMAVAMILHKFSFELPSYTHAPFAIVTIHPQYGAPlLMRRL

FIG. 55

SEQ ID 109 D70A-BD4
1 CA AAATTTGCT ATGTTAGAGG CTAAAATGGC AATGGCTATG
121 ATTCTGAAAA CCTATGCATT TGAACCTCT CCATCTTATG CTCATGCTCC TCATCCACTA
181 CTACTTCAAC CTCATATGG TGCTCAATTAA ATTTTGTACA AGTTGTAG
SEQ ID 110
QNFAMLEAKMAMAMILKTYAFELSPSYAHAPHPLLQPQYGAQLILYKL

FIG. 56

SEQ ID 111 D181-AC5
1 TATAGCATGG GGCTCAAGGC GATTCAAGCT AGCTTAGCTA
61 ATCTTCTACA TGGATTTAAC TGGTCATTGC CTGATAATAT GACTCCTGAG GACCTCAACA
121 TGGATGAGAT TTTTGGGCTC TCTACACCTA AAAAATTTC AC TTGCTACT GTGATTGAGC
181 CAAGACTTTC ACCAAAACCTT TACTCTGTT GA
SEQ ID 112
YSMGLKAIQASLANLLHGFNWSLPDNMTPEDLNMDEIFGLSTPKFPLATVIEPRLSPKLYSV

FIG. 57

SEQ ID 113 D144-AH1
1 TAT AGCTTGGGGC TCAAGGAGAT TCAAGCTAGC
61 TTAGCTAATC TTCTACATGG ATTAACTGG TCATTGCCTG ATAATATGAC TCCTGAGGAC
121 CTCAACATGG ATGAGATTT TGGGCTCTCT ACACCTAAAA AATTCCACT TGCTACTGTG
181 ATTGAGCCAA GACTTCACC AAAACTTAC TCTGTTTGA
SEQ ID 114
YSLGLKEIQAISLNLHGFNWSLPDNMTPEDLNMDEIFGLSTPKFPLATVIEPRLSPKLYSV

FIG. 58

SEQ ID 115 D34-65
1 CATAGTTG GGGCTCAAGG TGATTCAAGC TAGCTTAGCT
61 AATCTTCTAC ATGGATTTAA CTGGTCATTG CCTGATAATA TGACTCCTGA GGACCTCAAC
121 ATGGATGAGA TTTTGGGCT CTCTACACCT AAAAATTTC CACTTGCTAC TGTGATTGAG
181 CCAAGACTTT CACCAAAACT TTACTCTGTT TGA
SEQ ID 116
HSLGLKVIQASLANLLHGFNWSLPDNMTPEDLNMDEIFGLSTPKFPLATVIEPRLSPKLYSV

FIG. 59

SEQ ID 117 D35-BG2
1 CTGTGCTTT CCATGTTAA TCTCTAGTTA TATACTGGCT
61 TTGAATGTGA ATCTGTATCA TAATTCTTG CAAATTCTC CTTCCATTTC TTATTAA
SEQ ID 118
LCFPCLISSYILALNVNLYHNFLQISPSISY

FIG. 60

SEQ ID 119 D73A-AH7
1 TCTG GACTTGCTCA ATGTGTGGTT GGTTTAGCTT TAGCAACTCT AGTGCAGTGT
121 TTTGAGTGGAA AAAGGGTAAG CGAAGAGGTG GTGATTGAA CGGAAGGAAA AGGTCTCACT
181 ATGCCAAAC CCGAGCCACT CATGGCTAGG TGCGAAGCTC GTGACATTT TCACAAAGTT
241 CTTTCAGAAA TATCTTAA
SEQ ID 120
SGLAQCVVGLALATLVQCFEWKRVSEEVVDLTEGKGLTMPKPEPLMARCEARDIFHKVLSEIS

FIG. 61

SEQ ID 121 D58-AA1
1 TTGGGCTTG GCAACGGTGC ATGTGAATTT GATGTTGGCC
61 CGAATGATTG AAGAATTGAA ATGGTCCGCT TACCCGGAAA ATAGGAAAGT GGATTTACT
121 GAGAAATTGG AATTACTGT GGTGATGAAA AATCCTTAA GAGCTAAGGT CAAGCCAAGA
181 ATGCAAGTGG TGTA

SEQ ID 122
LGLATVHVNLMLARMIQEFEWSAYPENRKVDFTKELEFTVVMKNPLRAKVKPRMQVV

FIG. 62

SEQ ID 123 D73A-AE10
1 TATGCTT TGGCTATGCT TCATTTAGAG
121 TACTTTGTTG CTAATTTGGT TTGGCATTTT CGATGGGAGG CTGTGGAGGG AGATGATGTT
181 GATCTTTCAG AAAAGCTAGA ATTCAACCGTT GTGATGAAGA ATCCACTTCG AGCTCGTATC
241 TGCCCCAGAG TTAACCTCAT TTGA

SEQ ID 124
YALAMLHLEYFVANLVWHFRWEAVEGDDVDSLSEKLEFTVVMKNPLRARIICPRVNSI

FIG. 63

SEQ ID 125 D56A-AC12
1 GGTCAGCAAG TTGGACTTCT TAGAACACC ATTTTCATCG CCTCATTACT GTCTGAATAT
61 AAGCTGAAAC CTCGCTACA CCAGAAACAA GTTGAACCTCA CCGATTTAA TCCAGCAAGT
121 TGGCTTCATT CGATAAAAAGG CGAACTGTTA GTCGATGCGA TTCCCTCGAAA GAAGGCGGCA
181 TTTAA

SEQ ID 126
GQQVGLLRTTIFIASLSEYKLKPRSHQKVELTDLNPAWSLHSIKGELLVDIAIPRKKAAF

FIG. 64

SEQ ID 127 D177-BF7
1 ATCACATTG CTAAGTTGT GAATGAGCTA
121 GCATTCGGAA GATTAATGTT CCATTTGAT TTCTCGCTAC CAAAAGGAGT TAAGCATGAG
181 GATTGGACG TGGAGGAAGC TGCTGGAATT ACTGTTAGAA GGAAAGTTCCC CCTTTAGCC
241 GTCGCCACTC CATGCTCGTG A

SEQ ID 128
ITFAKFVNELALARLMFHDFSLPKGVKHEDLDVEEAAGITVRRKFPLLAVATPCS

FIG. 65

SEQ ID 129 D73A-AG3
1 CA GAGGTATGCT ATAACCAATT TGATGCTCTT TATTGCGTTG
121 TTCACGGCTC TGATTGATT CAAGAGGCAC AAAACGGACG GCTGTGATGA TATCCCGTAT
181 ATTCCAACCA TTGCTCCAAA GGATGATTGT AAAGTGTCC TTTCACAGAG GTGCACTCGA
241 TTCCCATCTT TTTCATGA

SEQ ID 130
QRYAINHMLFIALFTALIDFKRHKTDCDDIAYIPTIAPKDDCKVFLSQRCTRFPFS

FIG. 66

SEQ ID 131 D70A-AA12
1 ATG TCATTTGGTT TAGCTAATCT TTACTTACCA TTGGCTCAAT
121 TACTCTATCA CTTGACTGG AAACCTCCAA CGGAATCAA GCCAAGAGAC TTGGACTTGA
181 CGAATTATC GGGATAACT ATTGCTAGAA AGGGTGACCT TTACTTAAAT GCTACTCCTT
241 ATCACCTTC TCGAGAGTAA
SEQ ID 132
MSFGLANLYLPLAQQLLYHFDWKLPKGKPRDLDLTELSGITIARKGDLYLNATPYQPSRE

FIG. 67

SEQ ID 133 D185-BC1
1 TTGGGCTTG GCAACGGTGC ATGTGAATTT GATGTTGGCC
61 CGAACGATTC AAGAATTGTA ATGGTCCGCT TACCCGGAAA ATAGGAAAGT GGATTTACT
121 GAGAAATTGG ATTACTGT GTGATGAAA AACCCTTAA GAGCTAAGGT CAAGCCAAGA
181 ATGCAAGTGG TGTA
SEQ ID 134
LGLATVHVNLMLARTIQEFEWSSAYPENRKVDFTEKLEFTVVMKNPLRAKVKPRMQVV

FIG. 68

SEQ ID 135 D185-BG2
1 TTGGGCTTG GCAACGGTGC ATGTGAATTT GATGTTGGCC
61 CGAATGATTC AAGAATTGTA ATGGTCCGCT TACCCGGAAA ATAGGAAAGT GGATTTACTG
121 AGAAATTGGA ATTACTGTG GTGA
SEQ ID 136
LGLATVHVNLMLARMIQEFEWSSAYPENRKVDLLRNWNLLW

FIG. 69

SEQ ID 137 D185-BE1
1 ATCACATTT GCTAAGTTG TGAATGAGCT AGCATTGGCA
61 AGATTAATGT TCCATTTGA TTTCTCGCTA CCAAAAGGAG TTAAGCATGA GGATTTGGAC
121 GTGGAGGAAG CTGCTGGAAT TACTGTTAGG AGGAAGTTCC CCCTTTAGC CGTCGCCACT
181 CCATGCTCGT GA
SEQ ID 138
ITFAKFVNELALARLMFHDFSLPKGVKHEDLDVEEAAGITVRRKFPLLAVALATPCS

FIG. 70

SEQ ID 139 D185-BD2
1 ATCACATTT GCTAAGTTG TGAATGAGCT AGCATTGGCA
61 AGATTAATGT TCCATTTGA TTTCTCGCTA CCAAAAGGAG TTAAGCATGC GGATTTGGAC
121 GTGGAGGAAG CTGCTGGAAT TACTGTTAGA AGGAAGTTCC CCCTTTAGC CGTCGCCACT
181 CCATGCTCGT GA
SEQ ID 140
ITFAKFVNELALARLMFHDFSLPKGVKHADLDVEEAAGITVRRKFPLLAVALATPCS

FIG. 71

SEQ ID 141 D176-BG2
1 CA AAATTTGCC ATGTTAGAAC CAAAGACTAC TTTGGCTATG
121 ATCCTACAAC GCTTCCTTGA TGAACTGTCT CCATCTTATG CACATGCTCC TCAGTCCATA
181 ATAACTTGCA AACCCAGTA TGGTGCTCCA CTTATTTGC ATAAAATATA
SEQ ID 142
QNFAMLEAKTTLAMILQRFSFELSPSYAHAPQSIITLQPQYGAPlLHKI

FIG. 72

SEQ ID 143 D185-BD3
1 ATTATCCTT GCACAGCCAA TTCTGGCAT TACCTTGGGA
61 CGCTTGGTGC AGAACATTGA GTTGTGCCT CCTCCAGGAC AGTCAAAGCT TGACACAAACA
121 GAGAAAGCG GGCAATTCAAG TCTGCACATT TTGAAGCATT CCACCATTGT GATGAAACCA
181 AGATCTTTT AA
SEQ ID 144
IIILALPILGITLGRLVQNFEPLLPGQSKLDTEKGGQFSLHILKHSTIVMKPRSF

FIG. 73

SEQ ID 145 D176-BC3
1 C AAAATTTGC CATGTTAGAAC GCAAAGACTA CTTTGGCTAT
121 GATCCTACAA CGCTTCCTTGA TGAACTGTCT CCATCTTAT GCACATGCTC CTCAGTCCAT
181 AATAACATTGC AACCCAGTA TGGTGCTCCA CTTATTTGC ATAAAATATA GTTTATTACT
241 TGTAAGTAGT GTCTCGTTT ATGTTAAGCA TGAGTCCAA ATGTTAAGGC TTGTAGAACT
301 GCAAAATGGG AATGCATTG CACTCGTGC CTGTTAGATTG TTGTAA
SEQ ID 146
QNFAMLEAKTTLAMILQRFSFELSPSYAHAPQSIITCNPSMVLHLFCIKYSLLLSSVSFYVKHESKMLRLVELQNGNA
FALVHCRLL

FIG. 74

SEQ ID 147 D176-BB3
1 GCTGAT
61 ATGGGGTTGC GAGCAGTTTC TTTGGCATTAGGTGCACCTTA TTCAATGCTT TGACTGGCAA
121 ATTGAGGAAG CGGAAAGCTT GGAGGAAAGC TATAATTCTA GAATGACTAT GCAGAACAAAG
181 CCTTGAAGG TTGTCGAC TCCACGCGAA GATCTTGGCC AGCTTCTATC CCAACTCTAA
SEQ ID 148
ADMGLRAVSLALGALIQCFDWQIEEAESLEESYNNSRMTMQNPLKVVCPTREDLGQLLSQL

FIG. 75

NAME D89-AB1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 149

1 CTTCCCTCCT AAGTCCTAAC TAAAAATGGA GATTCACTT TCTAACTTAG TTGCATTCTT
61 GCTCTTTCTC TCCAGCATCT TTCTTCTATT CAAAAAATGG AAAACAGAA AACTAAATT
121 GCCTCTGGT CCATGGAAAT TACCTTTAT TGGAAAGTTA CACCATTGGA CTGTGGCAGG
181 TCCACTCTC CACCATGGCC TAAAAAATT AGCCAAACGC TATGGTCCTC TTATGCATT
241 ACAACTTGGG CAAATTCTTA CACTCATCAT ATCATCACCT CAAATGGCAA AAGAAGTACT
301 AAAAACTCAC GACCTCGCTT TTGCCACTAG ACCAAAGCTT GTCGCGGCCG ACATCATTCA
361 CTACGACAGC ACGGACATAG CATTTCCTCC GTACGGTGA TACTGGAGAC AAATTGCAA
421 AATTGCGATA TTGGAACTCT TGAGTGCCAA GATGGTCAA TTTTTTAGCT CGATTGCCA
481 AGATGAGCTC TCGAAGATGC TCTCATCTAT ACGAACGACA CCCAATCTTA CAGTCATCT
541 TACTGACAAA ATTGTTGGT TTACGAGTTC GTTAACCTGT AGATCAGCTT TAGGAAAGAT
601 ATGTGGTGAC CAAGACAAAT TGATCATT TTATGAGGGAA ATAATATCAT TGCGAGGTTG
661 ATTCTAGTATT GCTGATTTT TCCTACATG GAAAATGATT CATGATATTG ATGGTTGAA
721 ATCTAAACTG GTGAAAGCAC ATCGTAAGAT TGATGAAATT TTGGGAAATG TTGTTGATGA
781 GCACAAAAAG AACAGAGCG ATGGCAAGAA GGTTAATGGT GAATTGGTG GTGAGGATT
841 GATTGATGTA TTGTTAAGAG TTAGAGAAAG TGGAGAAAGT CAAATTCTTA TCACAAATGA
901 CAATATCAA TCAATATTTA TCGACATGTT CTCTGCAGGA TCTGAAACAT CATCGACGAC
961 TATAATTGG GCATTAGCTG AAATGATGAA GAAACCAAGT GTTTAGCAA AGGCACAAGC
1021 TGAAGTAAAGG CAAAGCTTGA AGGAGAAAAA AGGTTTCAA CAGATTGATC TTGATGAGCT
1081 AAAATATCTC AAGTAGTAA TCAAAGAAC CTTAAGAATG CACCCCTCAA TTCCCTTATT
1141 AGTTCTAGA GAATGATGAG AGGATACAAA GATTGATGGT TACAATATAC CTTTCAAAAC
1201 AAGAGCTATA GTTAATGCTC GGGCAATCGGG AGGAGATCCA GAAAGTTGGG ATGACCCGA
1261 AAGCTTATG CCAGAGAGAT TTGAGAAATAG TTCTATTGAC TTCTTGGAA ATCATCATTCA
1321 GTTTATACCA TTTGGTGCAG GAAGAAGGAT TTGTCGGGA ATGCTATTG GTTTAGCTAA
1381 TGTGGACAA CCTTCTAGCTC AGTTACTTTA TCACTTCGAT TGGAAACTCC CTAATGACA
1441 AAGTCATGAG AATTTCGACA TGACTGAGTC ACTTGGAAATT TCTGCTACAA GAAAGGATGA
1501 TCTTGTGTTTG ATTGCCACTC CTTATGATTC TTATTAAGCA GTAGCAGAAA TAAAAAGCCG
1561 GGGCAACAG AAAAAA

SEQ. ID. NO. 150

1 MEIQFSNLVA FLLFLSSIFL LFKKKWKRKL NLPPGPWKLP FIGSLHHlav AGPLPHGLK
61 NLAKRYGPMLM HLQLGQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVAADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMLS SIRTPNLTIV NLTDKIFWFT
181 SSVTCRSALG KICGDQDKLI IFMREIIISLA GGFSTIADFFP TWKMIHDIDG SKSKLVKAHR
241 KIDEILGNVV DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNIKSILID
301 MFSAGSETSS TTIIWALAEK MKKPSVLAKA QAEVRQALKK KKGFOQIDLD ELKYLKLVIK
361 ETLMHPPPIP LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE
421 NSSIDFLGNH HQFIPFGAGR RICPGMLFGL ANVGQPLAQL LYHFDWKLPN GQSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

FIG. 76

NAME D89-AD2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 151

1 TCCCTCTTCC TTCCCTAACGTC CTAACAAAAA ATGGAGATTC AGTTTCTAA CTTAGTTGCA
61 TTCTTGCTCT TTCTCTCCAG CATCTTCTT CTATTCAAAA AATGGAAAAC CAGAAAACCA
121 AATTTCGCTC CTGGTCCATG GAAATTACCT TTATTGGAA GTTACACCA TTGGCTGTG
181 GCAGGTCAC ACACGGCTAACCA TGGCCTAAAAA AATTAGCCA AACGCTATGG TCCTCTTATG
241 CATTTACAAAC TTGGACAAT TCCTACACTC ATCATATCAT CACCTCAAAT GGCAAAAGAA
301 GTACTAAAAA CTCAGGACCT CGCTTTTGCC ACTAGACCAA AGCTTGTCTG GCCCGACATC
361 ATTCACTACCG ACAGCACGGA CATAGCAATT TCTCCGTACG GTGAATACTG GAGACAAATT
421 CGTAAAATTGC GCATATTGGA ACTCTTGAGT GCCAAGATGG TCAAATTGTT TAGCTCGATT
481 CGCAAGATG AGCTCTGAA GATGCTCTCA TCTATACGAA CGACACCCAA TCTTACAGTC
541 AATCTTACTG ACAAAATTG TTGGTTAACG AGTTCCGGTAA CTTGTAGATC AGCTTTAGGG
601 AAGATATGTG GTGACCAAGA CAAATTGATC ATTTTATGA GGGAAATAAT ATCATTGGCA
661 GGTGGATTTA GTATTGCTGA TTTTTCCTT ACATGGAAA TGATTCTGAA TATTGATGGT
721 TCGAAATCTA AACTGGTGA AGCACATCGT AGATTGATG AAATTTGGG AAATGTTGTT
781 GATGAGCCAA AAAAGAACAG AGCAGATGGC AGAAGGGTA ATGGTGAATT TGGTGGTGA
841 GATTGATTG ATGTATTGTT AAGAGTTAGA GAAAGTGGAG AAGTTCAAAAT TCCTATCACA
901 AATGACAAATA TCAAATCAAT ATTAATCGAC ATGTTCTGCG CGGGATCTGA AACATCATCG
961 ACGACTATAA TTTGGGCATT AGCTGAAATG ATGAGAAAC CAAGTGTGTT AGCAAAGGCA
1021 CAAGCTGAAG TAAGGCCAAC TTTGAAGGG AAAAAGGTT TCAACAGAT TGATCTGAT
1081 GAGCTAAAAT ATCTCAAGTT AGTAATCAAA GAAACCTTAA GAATGCACCC TCCAATTCT
1141 CTATTAGTTG CTAGAGAATG TATGGAGGAT ACAAAAGATTG ATGGTTACAA TATACCTTTC
1201 AAAACAAAGAG TCATAGTAA TGCACTGGCA ATCGGACAGG ATCCAGAAAAG TTGGGATGAC
1261 CCCGAAAGCT TTATGCCAGA GAGATTGAG AATAGTCTA TTGACTTTCT TGAAATCAT
1321 CATCAGTTA TACCATTTGG TGCAAGGAGA AGGATTGTC CGGGATGCT ATTTGGTTA
1381 GCTAATGTTG GACAACCTT AGCTCAGTTA CTTTATCACT TCGATTGGAA ACTCCCTAAAT
1441 GGACAAAGTC ATGAGAATTG CGACATGACT GAGTCACCTG GAATTCTGC TACAAGAAG
1501 GATGATCTTG TTGATTGCA CACTCCTTAT GATTCTTATT AAGCAGTAGC AGAAATAAA
1561 AGCCGGGGCA AACAGAAAAA A

SEQ. ID. NO. 152

1 MEIQFSNLVA FLLFLSSIFL LFKKKWKRKL NLPPGPWKLP FIGSLHHlav AGPLPHGLK
61 NLAKRYGPIM HLQLQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICICLELLS AKMVKFFSSI RQDELSKMLS SIRTPNLTv NLTDKIFWT
181 SSVTCRSAKG KICGDQDKLI IFMREIISLA GGFsiADFFF TWKMIHDIDG SKSKLVKahr
241 KIDEILGNVV DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNIKSILID
301 MFSAGSETSS TTIWALAEK MKKPSVLAKA QAEVRQALKE KKGFQQIDL D ELKYLKLVIK
361 ETLRMHPPIP LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERF
421 NSSIDFLGNH HQFIPFGAGR RICPGMLFGL ANVGQPLAQL LYHFDWKLPN GQSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

FIG. 77

NAME D90A-BB3
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 153

1 CAACTGCACT TTGAAGATAC CAACTAACCA AAAATGCAGTT CTTCAGCTTG GTTTCCATT
61 TCCTATTTCT ATCTTTCTC TTTTGTTAA GGAAATGGAA GAACTCGAAT AGCCAAAGGA
121 AAAAATTGCC ACCAGGTCCA TGAAAACTAC CAATACTAGG AAGTATGCTT CATATGGTTG
181 GTGGACTACC ACACCATGTC CTTAGAGATT TAGCCAAAAA ATATGGACCG CTTATGCACC
241 TTCATTAGG TGAAGTTCT GCAGTTGTGG TTACTTCTCC TGATATGGCA AAAGAAGTAC
301 TAAAAACTCA TGACATCGCT TTGCGCTCTA GGCGTAGCCCT TTGGCCCCG GAGATTGCT
361 GTTACAATAG GTCTGATCTT GCGTTTGCC CCTATGCCGA TTATTGGAGA CAAATGCCA
421 AAATATGTGT CTTGGAAGTG CTCAGTGCCA AGAATGTTCG GACATATAGC TCTATTAGGC
481 GCGATGAAGT TCTTCGTCTC CTTAATTTTA TCCGGTCATC TTCTGGTGAG CCTGTTAATA
541 TTACGGAAAG GATCTTTTG TTACAAGCT CCATGACATG TAGATCAGCC TTTGGGCAAG
601 TATTCAAGGA GCAAGACAAA TTATACAAAC TAATTAAGA AGTTATAC TTAGCAGGAG
661 GGGTTGATGT GGCTGACATA TTCCCTTCAT ACAAGTCTCT TCATGTGCTC AGTGGAAATGA
721 AGGGTAAGAT TATGAATGCA CACCCATAAGG TAGATGCTAT TGGTGGAGAT GTCATCAACG
781 AGCACAAAGAA AAATCTTGCA ATTGGGAAAA CTAATGGAGC GTTGGAGGT GAAGATTAA
841 TTGATGTTCT TCTAAAATT ATGAATGATG GAGGCCCTCA ATTCCTATC ACCAACGACA
901 ACATCAAAGC TATAATCTT GACATGTTG CTGCTGGAAC AGAGACTTCA TCGTCAACAA
961 TTGTGTTGGC TATGGTGGAA ATGGTGGAAA ATCCAACACTGT ATTTGGCAA GCTCAAGCAG
1021 AAGTAAGAGA TGCAATTAGA GAAAAGAAA CTTTGATGA AAATGATGTG GAGGAGCTAA
1081 ACTATCTAAA GTTAGTCATT AAAGAAACTC TAAGACTTCA TCCACCGGTT CCACTTTGC
1141 TCCCAAGAGA ATGTAGGAA GAGACAAATA TAAACGGCTA CACTATTCT GTAAAGACCA
1201 AAGTCATGGT TAATGTTTGG GCATTGGGAA GAGATCCAAAT ATTTGGGAT GATGCAGAAA
1261 TCTTTAAGCC AGAGAGATTG GAGCACTGCT CTAAGGATTG TGTTGGTAAT AATTTGGAAT
1321 ATCTTCATT TGGGGTGGG AGGAGGATTG GTCCAGGGAT TTGTTGGGT TTAGCTAATG
1381 CTTATTGCCC ATTGGCTCAA TTACTTTATC ACTTTGATG GGAACCCCC ACTGGAATCA
1441 AACCAAGCGA CTTGGACTTG ACTGAGTTGG TTGGAGTAAC TGCCGCTAGA AAAAGTGC
1501 TTACTTGGT TCGCACTCCT TATCAACCTC CTCAAAAC

SEQ. ID. NO. 154

1 MQFFSILVSIF LFLSFLFLLR KWKNNSNSRK KLPPGPWKLP ILGSMILHMGV GLPHVVLRLD
61 AKKYGPLMHL QLGEVSAVVV TSPDMAKEVL KTHDIAFASR PSLLAPEIVC YNRSIDLAFCP
121 YGDYWRQMRK ICVLEVLSAK NVRTYSSIRR DEVLRLLNFI RSSSGEPVNI TERIFLFTSS
181 MTCRSAFGQV FKEQDKFIQL IKEVILLAGG FDVADIFPSY KSLHVLSGMK GKIMNAHHKV
241 DAIENVINE HKKNLAIGKT NGALGGEDLI DVLLKLMNDG GLQFPITNDN IKAIIFDMFA
301 AGTETSSSTI VWAMVEMVKN PTVFAKAQAE VRDAFREKET FDENDVEELN YLKLVIKETL
361 RLHPPVPLL PRECREETNI NGYTIPVKTK VMVNWLGR DPKYWDDAET FKPERFEQCS
421 KDFVGNNFY LPFGGRRIC PGISFGLANA YLPLAQLLYH FDWELPTGIK PSDLDLTEL
481 GVTAARKSDL YLVATPYQPP QN

FIG. 78

NAME D95-AG1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 155

1 AAAAGATGTC TTCACTTTCC ACATCTTCTG CCACTTCTAA TTCCAAACTT CCAGTTCGAG
61 AAATCCCAGG AGACTATGGT TTCCCCTTTT TTGGAGCCAT AAAAGATAGA TATGACTACT
121 TCTACAACCT CGGCACAGAC GAATTCTTC TTACCAAAT GCAAAAATAC AACTCTACTG
181 TCTTTAGAAC CAACATGCCA CCAGGTCCAT TCATTGCTAA AAATCCCAA AATAATTGTC
241 TCCTCGATGC AAAACATT TCCGTTCTT TCGACAACTC TAAAGTCGAA AAAATGAAACG
301 TTCTTGATGC CACGTACGTG CCATCTACTG ATTCTCATGG CGGATATCCG CCGTGTGCTT
361 ATCTTGATCC TTCTGAGTCA ACTCATGCCA CACTTAAAGG GTTCTTTTA TCTTTAATCT
421 CCCAGCTTCA TAATCAATT ATTCTTTAT TTAGAACCTC AATTCTGGT CTTCGCAA
481 ATCTTGAGAA TGAGATTCC CAAAATGGCA AAGGCAACTT CAACAATAIC AGGACATTA
541 TGTCATTCGA TTTTGTGTTT CGTTGTTAT GTGACAAGAC CAGTCCCCAT GACACAATC
601 TTGGCTCTAA TGGACCAAA CTCTTGATA TATGGCTGTT GCCTCAACTT GCTCCATTGT
661 TTAGTCTAGG TCTAAATTG TGCGGAAC TTCTGAAAGA TTAAATGTTG CATACTTTTC
721 CCTTGCCTT TTTCTTAGTG AGATCGAATT ACCAGAAAGCT TTATGATGCT TTTAGCAAGC
781 ATGCCGAAAG TACACTGAAT GAAGCAGAGA AGAATGGGAT CAAAAGAGAC GAAGCATGCC
841 ACAACTTAGT TTTCTTGTCA GGTTCAATG TTGTTGGTGG GATGAAAGTT TTATTCCTG
901 CACTGATAAA GTGGGTCGCC AATGGAGGAA AGAGTTTACA CACTCGGCTG GCAAATGAAA
961 TCAGGACAAAT TATCAAAGAA GAATGTGGGA CCATAACTCT ATCAGCAATC AACAGATGA
1021 GTTTAGTAAA ATCAGTAGTG TATGAAGTAT TAAGAATTGA ACCTCCAGTT CCATTCCAT
1081 ATGGTAAAGC CAAAGAAGAT ATCATAATCC AAAGCCATGA TTCAACTTTC TTAGTCAAGA
1141 AAGGTGAATG GATCTTGGTA TATCAGCCTT TTGCTACAAA AGATCCAAG ATTTTGACA
1201 AACCAAGAGGA GTTTATTCCG GAGAGTTCA TGCCCGAAGG GAAAAAATTA TTAAAGTATG
1261 TGTATTGGTC AAATGCAAGA GAGACAGATG ATCCAACGGT GGACAACAAA CAATGCCAG
1321 CGAAAAATCT TGTCTGCTT TTGTGCAGGT TGATGTTGGT GGAGGTTTTC ATGCGTTACG
1381 ACACATTCAAC AGTGGAGTCA ACAAAGCTCT TTCTTGGTC ATCAGTAACG TTCACGACTC
1441 TGGAAAAGC GACATGAGTT TCAGATATCT TAATTGTAGG CTGCAAATAA TAATGTGGTC
1501 ATTCTGCAAA TTATTGTACT TGTCGATG

SEQ. ID. NO. 156

1 MSSFSTSSAT SNSKLPVREI PGDYGFPPFG AIKDRYDYFY NLGTDEFFLT KMQKYNSTVF
61 RTNMPGPFI AKNPKVIVLL DAKTFPVLFD NSKVEKMNL DGTYPSTDF YGGYRPCAYL
121 DPSESTHATL KGFLFLSLISO LHNQFTPLFR TSISGLFANL ENEISQNKGKA NFNNISDIMS
181 FDFVFRLLCD KTSPHDTNLG SNGPKLFDIW LLPQLAPLFS LGLKFVPNFL EDMLLHTFPPL
241 PFFLVRSNYQ KLYDAFSKHA ESTLNEAEKN GIKRDEACHN LVFLAGFNAY GGMKVLFPAL
301 IKWVANGKGS LHTRLANEIR TIKEECGTI TLSAINKMSL VKSVVYEVLR IEPPVFPQYG
361 KAKEDIQQS HDSTFLVKKG EMIFGYQPFA TKDPKIFDKP EEFIPERFMA EGEKLKYVY
421 WSNARETDDP TVDNKQCPAK NLVULLCRM LVEVFMRYDT FTVESTKLFL GSSVTFTTLE
481 KAT

FIG. 79

NAME D96-AB6
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 157

1 CCAAAAATGG AGCTTCAATC TTCTCCTTC AATTTAATTG CTTTGTTCCT CTTCTTTCT
61 TTTCATTTA TTCTAGTGA GAAATGGAAT GCCAAAATCC CAAAGTTACC TCCAGGTCG
121 TGGAGGCCTC CCTTTATTGG AACGCCTCCAT CACTGAGG GAAAACCTCC ACACCATAAT
181 CTTAGAGATC TAGCGCAGAA ATATGGGCCT CTCATGTACT TACAACCTCGG AGAAATTCT
241 GTAGTTGTAATCTTCGCC ACCTGTAGCA AAAGCTGTAC TAAAAACTCA TGATCTCGCT
301 TTTGCAACTA GACCAACGATT CATGTCCTCA GACATTGTGT TTTACAAAAG CAGGGACATC
361 TCTTTGCCC CATTGGTGA TTACTGGAGA CAGATCGTA AAATATTGAC TCAGGAACTC
421 CTGAGTAACA AGATGCTCAA GTCATATAGC TTAATCCGAA AGGATGAGCT CTCGAAGCTC
481 CTCTCATCGA TTCGTTGGA AACAGGTTCT GCAGTGAACA TAAATGAAA GCTTCTCTGG
541 TTTACGAGCT GCATGACCTG TAGATTAGCC TTTGGAAAAA TATGCAATGA TCGGGATGAG
601 TTGATCATGC TAATTAGGG AATATTAACA TTATCAGGGAG GATTGATGT GGGTGATTG
661 TTCCCTTCCT GGAAATTACT TCATAATATG AGCAACATGA AAGCTAGGT GACGAATGTA
721 CACCACAAAGT ATGATTAGT TATGGAGAAC ATCATCAATG AGCACCAAGA GAATCATGCA
781 GCAGGGATAA AGGGTAACAA CGAGTTGGT GGCAGAAGATA TGATCGATGC TCTACTGAGG
841 GCTAAGGAGA ATAATGAGCT TCAATTCTC ATCGAAAATG ACAACATGAA AGCAGTAATT
901 CTGGACTTGT TTATTGCTGG AACTGAAACT TCATATACTG CAATTATATG GGCACATCA
961 GAATTGATGA AGCACCCAAG TGTGATGGCC AAGGCACAAG CTGAAGTGG AAAAGTCTC
1021 AAAGAAAATG AAAATTCTGA CGAAAATGAT CTTGACAAGT TGCCATACTT AAAATCAGTG
1081 ATTAAAGAAA CACTAAGGAT GCACCCCTCA GTTCCCTTGT TAGGGCTAG AGAATGCAGG
1141 GACCAACAG AGATCGATGG CTAACTGTG CCTATTAAAG CTAGAGTTAT GGTAAATGCT
1201 TGGCCGATAG GAAGAGATC TGAAGAGTTGG GAAGAGATCTG AAAGTTCCA ACCGGAGCGA
1261 TTGGAAAAATA CTTCTGTTGA TCTTACAGGA AATCACTATC AGTTCATTC TTTCGGTTCA
1321 GGAAGAGAA TTGTGCTCAGG AATGTCGTTT CGTTTAGTTA ACACAGGGCA TCCTTTAGCC
1381 CAGTTGCTCT ATTGCTTGA CTGGAAACTC CCTGACAAGG TTAATGCAAA TGATTTTCGC
1441 ACTACTGAAA CAAGTAGAGT TTTTGAGCA AGCAAAGATG ACCTCTACTT GATTCCACAA
1501 AATCACAGGG AGCAAGATA GTCTAATTAA ATGGAGATTCT TGGAAGAATT AAAGAAGAAG
1561 GGCTATATAG GTGAGATTTT TTGTATGGTT GCA

SEQ. ID. NO. 158

1 MELQSSPFNL ISLFLFFSFH FILVKKWNK IPKLPPGPWR LPFIGSLHHL KGKLPHHNLR
61 DLARKYGPML YLQLGEIPVV VISSPRVAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APFGDYWRQM RKILTQELLS NKMILKSYSLI RKDELSKLLS SIRLETGSV NINEKLWFT
181 SCMTCRЛАFG KICNDRDELI MLIREILTLS GGFDVGDLPF SWKLLHHMSN MKARLTNVHH
241 KYDLMENII NEHQENHAAG IKGNNNEFGGE DMIDALLRAK ENNELQFFIE NDNMKAVID
301 LFIAGTETSY TAIIWALSEL MKHP SVMMAKA QAEVRKVFKENENFDENLD KLPYLKSVIK
361 ETLRMHPPVP LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE
421 NTSVDLGNH YQFIPFGSGR RMCPGMSFGL VNTGHPLAQI LYCFDWKLKD KVNAANDFRRT
481 ETSRVFAASK DDLYLIPTNH REQE

FIG. 80

NAME D96-AC2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 159

1 CTTCTTCCAA AAATGGAGCT TCAATCTCT CCTTTCAATT TAATTCTTT GTTCCTCTC
61 TTTTCTTTTC TTTTATTCT AGTGAAGAAA TGGAATGCCA AAATCCAAA GTTACCTCCA
121 GGTCGTGGA GGCTCCCTT TATGGAAAGC CTCCATCACT TGAGGGAAA ACTTCCAC
181 CATAATCTTA GAGATCTAGC GCGAAAATAT GGACCTCTCA TGACTTACA ACTCGGAGAA
241 ATTCTGTAG TTGTAATATC TTGCCACGT GTAGCAAAG CTGACTAAA AACTCATGAT
301 CTCGCTTTG CAATAGACC ACCATTCAATG TCCTCAGACA TTGTGTTTA CAAAAGCAGG
361 GACATCTCTT TTGCCCCATT TGTTGATTAC TGAGGACAGA TGCTAAAAT ATTGACTCAG
421 GAACTCCTGA GTAACAAGAT GCTCAAGTC TATAGCTAA TCCGAAAGGA TGAGCTCTCG
481 AAGCTCCTCT CATCGATTG TTTGGAAACA GTTCTGCAG TGAACATAAA TGAAAGCTT
541 CTCTGGTTA CGAGCTGCAT GACCTGTAGA TTAGCTTTG GAAAATATG CAATGATCGG
601 GATGAGTTGA TCATGCTAAT TAGGGAGATA TAAACATTAT CAGGAGGATT TGATGTTGGT
661 GATTTGTTCC CTTCTGGAA ATTACTTCAT AATATGAGCA ACATGAAAGC TAGGTTGACG
721 AATGTACACC ACAAGTATGA TTATGTTATG GAGAACATCA TCAATGAGCA CCAAGAGAAT
781 CATGCAGCAG GGATAAAGGG TAACAACGAG TTTGGTGGCG AAGATATGAT CGATGCTCTA
841 CTGAGGGCTA AGGAGAATAA TGAGCTTCAA TTTCCTATCG AAAATGACAA CATGAAAGCA
901 GTAATTCTGG ACTTGTTTAT TGCTGGAACT GAAACATTAT ATACTGCAAT TATATGGGCA
961 CTATCAGAAT TGATGAAGCA CCCAAGTGTG ATGGCCAAAGG CACAAGCTGA AGTGAGAAAA
1021 GTCTTCAAAG AAAATGAAAAA TTTCGACGAA ATATGATCTG ACAAGTTGCC ATACTTAAAA
1081 TCAGTGATTA AAGAAACACT AAGGATGCAC CCTCCAGTTC CTTTGTAGG GCCTAGAGAA
1141 TGCAGGGACC AAACAGAGAT CGATGGCTAC ACTGTACCTA TTAAAGCTAG AGTTATGGTT
1201 AATGCTTGGG CGATAGGAAG AGATCTGAA ATCTGGGAAG ATCTGAAAG TTTCAAACCG
1261 GAGCGATTG AAAATACTTC TTGTTGATCTT ACAGGAAATC ACTATCAGTT CATTCCCTTC
1321 GGTTCAAGGA GAAGAATGTG TCCAGGAATG TCGTTGGTT TAGTTAACAC AGGGCATCCT
1381 TTAGCCAGT TGCTCTATTG CTTTGAETGG AAACCTCTG ACAAGGTTAA TGCAAATGAT
1441 TTTCGACTA CTGAAACAAG TAGAGTTTT GCAGCAAGCA AAGATGACCT CTACTTGATT
1501 CCCACAATC ACAGGGAGCA AGAAATGCTT AATTAAATGG AGTTCTTGGG AGAATTAAAG
1561 AAGAAGGGCT ATATAGGTGA GATTTTTGT ATGGTTGCA

SEQ. ID. NO. 160

1 MELQSSPFNL ISLELFFSFL FILVKKWNAK IPKLPPGPWR LPFIGSLHHL KGKLPHHNLR
61 DLARKYGPLM YLQLGEIPVV VISSPRVAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APFGDYWRQM RKILTQELLS NKMILKSYSLI RKDELSKLLS SIRLETGSBV NINEKLWFT
181 SCMTCRЛАFG KICNDRDELL MLIREILTLS GGFDVGDLP SWKLLHHMSN MKARLTNVHH
241 KYDLVMENII NEHQENHAAG IKGNNNEFGGE DMIDALLRAK ENNELQFFIE NDNMKAVID
301 LFIAGTETSY TAIIWALSEL MKHPSVMAKA QAEVRKVFKKE NENFDENDLD KLPYLKSVIK
361 ETLRMHPPVP LLGPBRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE
421 NTSVDLGNH YQFIPFGSGR RMCPGMSFGL VNTGHPLAQL LYCFDWKLPD KVNAANDFRTT
481 ETSRVAASK DDLYLIPTNH REQE

FIG. 81

NAME D98-AA1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 161

1 CTTTCTTCT TGACCGAGA TGGAGTTCA ACACTTGGTT TCGTTCTTGC TATTCACTCTC
61 CTTCATCTT CTTCTAATTG AAAAATGGAG GAAATCGAAA AAGCTGCCAC CTGGTCCGTG
121 GAGGCTACCT ATTATTGGAA GTGTGATCA CTTGACAAGT GGAGTACCAAC ATCGAGTTCT
181 CAGAAATTAA TCACAAAAAT TTGGCCCGAT CATGTACTTG CAGCTCGGGG AAGTCCCAC
241 AGTAGTGTGA TCCTCCCCAC ACATGCCAA ACAAAATTAA AAAACTCATG ACCTCGCTTT
301 TGCACTCTAGG CCAGAAATCA TGATGGGAAA ATTATTGCA TACGATTGTA AGGACATTGC
361 CTTTCCCCG TATGGTATTG ATGGAGACA TATGCGTAA TTGAGCACCT TGGAACTACT
421 TAGTGCAG ATGGTCAAGT CCTTCAGTCC AATTGTCAA GATGAGCTCT CAAGTCTCCT
481 ATCATCCATT GAATCAATGG GAAATTGCG AATCAACTTA GTAGAAAAAC TTTTATGGTT
541 TATGAATGCC GCGACATGTG GGTCAAGCATT TGGGAAAGTC TGTAAAGATC AAAAGAGTT
601 GATAACATTG ATTCAACCGAG CAGAACATC ATTCTGGGAGA TTCGAGCTGG CTGATTGTT
661 CCCTTCGAAG AAGTTCTAC ATGGTATTAG TGGGATGCGA TCTAAACTAA TGGAACTCTG
721 TAACAAGATA GACGCAGTCT TGACAAACAT TATCAATGTG CACAGAGAGA ATCGGGCAA
781 TGGAAATAGT TGTATGGTG AGTCTGGAC TGTAGATTTC ATCGATGTT TTCTAAAGGGT
841 CATGGAGAGT GGCAGAATTAC CATTCCGGAT AGAAAATGAC AACATCAAAG CAGTTATTCT
901 TGACATGTTG GTAGCAGGAT CTGACACATC ATCTTCACCC GTTATTGGG CATTAAACAGA
961 AATGATGAGG AATCCAAAAG TCATGGCTAA AGCACAAAGCT GAAGTGAAGAG AAGCTTTAA
1021 AGGAAAGAAA GCATGTGATG AGGATACTGA TCTTGGAAAAG CTTCATTACC TAAATTAGT
1081 GATCAAAGAG ACACCTCCGAT TACACCCCTCC AACTCCTCTA CTTGTCCCGC GAGAATGCAG
1141 GGAGGAAACA GAGATAGAAAG GATTCACTAT ACCATTGAAA AGCAAAGTCT TGGTAAACGT
1201 ATGGCAATTG GGAAGAGATC CCGAGAAATTG GAAAATCCT GAATGTTTA TACCAAGAGAG
1261 ATTCGAAATG AGTTCTATTG AGTTTACTGG AAATCATTTC CAACCTCTTC CGTTTGGCGC
1321 TGGAGACGA ATTTGTCCAG GAATGCAATT TGGTTGGCT CTTGTTACTC TGCCATTGGC
1381 TCATTTGCTT CACAATTGGT ATTGGAAACT TCCCGAAGGA ATTAATGCAA GGGATTGGG
1441 CATGACAGAG GCAAATGGG TATCTCTAG AAGAGAAAAA GATCTTTACT TGATTGCTAC
1501 TCCCTATGTA TCACCTCTTG ATTAACCTCG AAATTTGCT TTAATGCTGC TTGCTTGCCT
1561 CACT

SEQ. ID. NO. 162

1 MEFQHIVSFL LFISFIFLLI QKWRKSKKLP PGPWRLPIIG SVHHLTSGVP HRVLRLNLSQK
61 FGPIMYLQLG EVPTVVVSSP HMAKQILKTH DLAFASRPEI MMGKIICYDC KDIASFSPYGD
121 YWRHMRKLST LELLSAKMVK SFSPIRQDEL SSSLSSIESM GNLPINLVEK LLWFMAATC
181 RSAFGVKCKD QKELITLIQR AESLSGGFEL ADLFFPSKKFL HGISGMRSKL MEARNKIDAV
241 LDNIINVRE NRANGNSCNG ESGTVDFIDV FLRVMESGEL PFPIENDNIK AVILDMDVAG
301 SDTSSSTVIW ALTEMMKNPK VMAKAQAEVR EAFKGKKACD EDTDLEKLHY LNLVIKETLR
361 LHPPTPLLVP RECREETEIE GFTIPLSKV LVNVWAIGRD PENWKNPCEF IPERFENSSI
421 EFTGNHFQLL PFGAGRRICP GMQFGGLALVT LPLAHLLHNF DWKLPEGINA RDLDMEANG
481 ISARREKDLY LIATPYVSPL D

FIG. 82

NAME D98-AG1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 163

1 CTTCTTGTA CCGAGATGGA GTTCAACAC TTGGTTTCGT TCTTGCTATT CATCTCCCTC
61 ATCTTTCTTC TAATTCAAAA ATGGAGGAAA TCGAAAAAGC TGCCACCTGG TCCGGAGG
121 CTACCTATTA TTGGAAGTGT GCATCACTTG ACAAGTGGAG TACCATCTG AGTTCTCAGA
181 AATTTATCAC AAAAATTG GCGATCATG TACTTGCAGC TCAGGGAAAGT TCCCACAGTA
241 GTTGATCCT CCCCACACAT GGCAAACAA ATTITTAAGAA CTCATGACCT CGCTTTGCA
301 TCTAGGCCAG AAATCATGAT GGGAAAAATT ATTGTGCTACG ATTGTAAAGGA CATTGCCCTT
361 TCCCCGTATG GTGATTATTG GAGACATATG CGTAAATTGA GCACCTTGGA ACTACTTAGT
421 GCCAAGATGG TCAAGTCCTT CAGTCCTAAT CGTCAAGATG AGCTCTCAAG TCTCTATCA
481 TCCATTGAAT CAATGGAAA TTGCCAATC AACTTAGTAG AAAAACCTTT ATGGTTTATG
541 AATGCCCGA CATGTAGTC AGCATTGGG AAAGTGTGTA AGAGATCAAAA AGAGTTGATA
601 ACATTGATT AACGAGCAGA ATCATTATCT GTGATTCTG AGCTGGCTGA TTTGTTCCCT
661 TCGAAGAAGT TTCTACATGG TATTAGTGGG ATGCGATCTA AACTAATGGA AGCTCGTAAC
721 AAGATAGACG CAGCTTGGG CAACATTAC AATGTGCACA GAGAGAATCG GGCAAATGGA
781 AATAGTGTGTA ATGGTGGATC TGGAACTGTGTA GATTTCATCG ATGTTTTCT AAGGGTCATG
841 GAGAGTGGCG AATTACATT TCCGATAGAA AATGACAACA TCAAAGCAGT TATTCTTGAC
901 ATGTTGCTAG CAGGATCTGA CACATCATCT TCAACCGTTA TTTGGCAT AACAGAAACG
961 ATGAAAGATC CAAAAGTCAT GGTCAAAGCA CAAGCTGAAG TGAGAGAAGC TTTTAAAGGA
1021 AAGAAAGCAT GTGATGAGGA TACTGATCTT GAAAAGCATC ATTACCTAAA TTTAGTGATC
1081 AAAGAGACAC TCCGATTACA CCCTCCAATC CCTCTACTTG TCCCGCGAGA ATGCAGGGAG
1141 GAAACAGAGA TAGAAGGATT CACTATACCA TTGAAAGCA AAGTCTTGGT TAACGTATGG
1201 GCAATTGGAA GAGATCCCGA GAATTGGAAA ATACCTGAAT GTTTTATACC AGAGAGATTC
1261 GAAAATAGTT CTATTGAGTT TACTGAAAT CATTTCAC CATTTCGTT TGGCGCTGGA
1321 AGACGAATTG GTCCAGGAAT GCAATTGGT TTGGCTCTTG TTACTCTGCC ATTGGCTCAT
1381 TTGCTTCACA ATTTGATTG GAAACTTCCC GAAGGAATTG ATGCAAGGGA TTTGGCATG
1441 ACAGAGGCAA ATGGGATATC TGCTAGAAGA GAAAAGATC TTTACTTGAT TGCTACTCCT
1501 TATGTATCAC CTCTTGATTA ACTCTGAAAT TTGCTTTAA TGCTGCTTGC TTGCTTCACT

SEQ. ID. NO. 164

1 MEFQHLVSFL LFISFIFLLI QKWRKSKKLP PGPWRLPIIG SVHHLTSGVP HRVLRNLSQLK
61 FGPIMYLQLG EVPTVVVSSP HMAKQILKTH DLAFASRPEI MMGKIICYDC KDIASFSPYGD
121 YWRHMRKLST LELLSAKMVK SFSPIRQDEL SSLLSSIESM GNLPINLVEK LLWFNMNAATC
181 RSAFGKVCKD QKELITLIQR AESLSGGFEL ADLFPSKKFL HGISGMRSKL MEARNKIDAV
241 LDNIINVHRE NRANGNSCNG ESGTVDFIDV FLRVMESGEL PFPIENDNIK AVILDMEVAG
301 SDTSSSTVIW ALTEMKNPK VMAKAQAEVR EAFKGKKACD EDTDLEKHYY LNLVIKETLR
361 LHPPTPLLV RECREETEIE GETIPLKSKV LVNVWAIGRD PENWKNPCEF IPERFENSSI
421 EFTGNHFQLL PFGAGRRICP GMQFGLALVT LPLAHLHHNF DWKLPEGINA RDLDMEANG
481 ISARREKDLY LIATPYVSPL D

FIG. 83

NAME D100-BE2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 165

1 CAAAAAACAAA ATTCCAATGG TAAACATGTT CACTCGAATT ATATAAGCTC CTCTCCCTTT
61 AGCTTTTAC ATTATCACAA AACATTCTT ACGCAAACTC AGAAATAATC CACCAGCTCC
121 ATTTCTACT TTCCCCTTA TTGCCCATCT TTATCTCTTC AAAAACAC TTCAACGTC
181 CTTAGCCAAA ATCTCCGAAC GTTATGGCTC TGTTCTCTA CTCGAATTG GTTCACGAAA
241 AGTACTTTG GTTCTTCAC CATCTGCAGC TGAAGAAATGC TTAACAAAAAA ACGATATTAT
301 TTTCGCGAAI CGTCCTCTT TGATGGCTGG AAAACATCTT GGATATAATT TTACATCTT
361 GGCTTGAGT TCCTGACGG ATCATTGGAG AAATCTCGGA AGGATTACTT CAGTTGAGAT
421 GTTTCTGACT CATCGTCTTC AAATGCTACA TGGGATTCTGT ATTGATGAAG TGAAATCTAT
481 GGTTAAGAGG CTCAATTCT CTGCCATAGC TGAAAAATCT GTGGATATGA AGTCTATGTT
541 TTTTGAGCTG ATGCTCAATG TTATGATGAG GACAATTGCT GGAAAAAGAT ATTACGGTGA
601 GAATGGGAG GACATTGAGG AAAGTACGAG ATTCAAAGGT TTGGTCAAG AGACTTTCTAG
661 GATTGGCGGG GCGACGAATA TTGGCGACTT TTGCGCCGG TTGAAGTTAT TGGTGGGAA
721 ATTGGAGAAA AGTTTAATTG TGTGCAAGA GAACAGAGAT GAGTTTATGC AGGAATTAA
781 TAAAGATTCG AGAAAAAGAA TGGAGAAAGA AGGTACTGTT ACTGATTCAAG AAATTGAAGG
841 GAACAAGAAA TGTTTAATTG AAGTTTGTG AACATACAA GAAAATGAAAC CGGAATACTA
901 CAAAGATGAA ATCATCAGAA GCCTTATGCT TTGTTCTATT TGAGCTGGTA CAGATACTTC
961 AGTTGGACA ATGGAATGGG CTTTATCATT AATGTTAAC CACCCGTAAA CTCTGAAGAA
1021 AGCACAAGCT GAAATTGATG AACATATAGG ACATGAACGT TTAGTGGACG AGTCGGACAT
1081 CAACACACTA CCTTACCTAC GTGTATAAT CAACGAGACA TTCCGAATGTT ACCCTGCAGG
1141 ACCACTACTA GTCCCCACACG AGTCGTCAAGA GGAAACCACCT GTAGGAGGCT ACCGTGTAC
1201 CGGAGGAACC ATGTTACTTG TGAATTGTT GGCAATTTCAC AATGATCAGA AGCTATGGGA
1261 TGAACCAAGA AGTTTAAAC CAGAAAGATT TCAAGGACTA GATGGTGTAA GAGATGGTTA
1321 CAAAATGATG CCTTTGGTT CTGGACGAAG GAGTTGTCCT GGAGAAGGAT TGGCTGTTCG
1381 AATGGTGTGCC TTGTCATTGG GATGTATTAT TCAATGTTTT GATTGGCAAC GAATCGGC
1441 AGAATGGT GATATGACTG AGGAAACTGG ACTTACTTTG CCTAAAGCTC AACCTTGGT
1501 GGCCAAGTGT AGCCCACGAC CTTAAATGGC TAATCTTCTC TCTCAGATTG

SEQ. ID. NO. 166

1 MVNMFTPIIY APLLLAFYII TKHFLRKLRL NPPAPFLTFP FIGHLYLFKK PLQRTLAKIS
61 ERYGSVLLLE FGSRKVLLVS SPSAAEECLT KNDIIFANRP LLMAGKHLY NFTSLAWSSY
121 GDHWRLNLRI TSVEMFSTHR LQMLHGIRID EVKSMVKRLN SSAIAEKSD MKSMFFELML
181 NVMMRITIAGK RYYGENVEDI EEAATRFKGLV QETFRIGGAT NIGDFLPALK LLVRKLEKSL
241 IVLQENRDEF MQELIKDCRK RMEKEGTVD SEIEGNKKCL IEVLLTLQEN EPEYYKDEII
301 RSLMLVLLSA GTDTSVGTMW WALSLMLNHP ETLKKAQAEI DEHIGHERLV DESDINNLPY
361 LRCIINETFR MYPAGPLLVP HESSEETTVG GYRVPGGTML LVNLWAIHND PKLWDPEPRKF
421 KPERFQQLDG VRDGYKMMPF GSGRRSCPGE GLAVRMVALS LGCIIQCFDW QRIGEELVDM
481 TEGTGLTPK AQPLVAKCSP RPKMANLLSQ I

FIG. 84

NAME D100A-AC3
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 167

1 CAAAAAACAA ATTCCAATGG TTAACATGTT CACTCCAATT ATATAACGCTC CTGTCCTTTT
61 AGCTTTTAC ATTATCACAA AACATTTCTT ACGCAAACCTC AGAAAATAACC CACCAAGCTCC
121 ATTTCTTAAT TTCCCTTTA TTGGCCATCT TTATCTCTTC AAAAAACCCAC TTCAACGTCAC
181 CTTAGCCAA ATCTCCGAAC GTTATGGCTC TGTTCTTCTA CTCGAATTG TGTCAGGAAA
241 AGTACTTTG GTTCTTCAC CATCTGCAGC TGAAGAATGC TTAACAAAAA ACATATTAT
301 TTTCGGGAAT CGTCTCTTT TGATGGCTGG AAACATCTT GGATATAATT TTACTCTTT
361 GCCTGGAGT TCGTACGGAG ATCACTGGAG AAATCTTCGT AGGATTACCTT CAGTTGAGAT
421 GTTTCGACT CATCGTCTTC AAATGCTACA TGGAATTCTG ATTGATGAAG TGAAATCTAT
481 GTTAAAGAGG CTCAATTCTT CTGCCATAGC TGAAAAATCT GTGGATATGA AGTCTATGTT
541 TTTTGAGCTG ATGCTCAATG TTATGATGAG GACAATTGCT GGAAAAAGAT ATTACGGTGA
601 GAATGGGGAG GACATTGAGG AAACCTACGAG ATTCACAAAGGT TTGGTCAAG AGACCTTCAG
661 GATTGGCGGG GCGACGAATA TTGGCAGCTT TTGCGCCGGG TTGAAGTTAT TGGTGAGGAA
721 ATTGGAGAAA AGTTTAATTG TGGTCAAGA GAACAGAGAT GAGTTTATGC AGGAATTAAAT
781 TAAAGATTGC AGAAAAAGAA TGGAGAAAGA AGGTACTGTT ACTGATTCAAG AAATTGAAGG
841 GAACAAAGAAA TGTTTAATTG AAGTTTGTT AACACTACAA GAAAATGAAC CGGAATACTA
901 CAAAGATGAA ATCATCAGAA GCCTTATGCT TGTTCTTATA TCAGCTGGTA CAGATACCTC
961 AGTTGGGACA ATGGAATGGG CTTTATCATT AATGTTAAAC CACCCCTGAAGA CTCCTGAAGAA
1021 AGCACAAGCT GAAATTGATG AACATATAGG ACATGAACGT TTAGTGGACG AGTCGGACAT
1081 CAACAAACCTA CCTTACCTAC GTTGATAAT CAACGAGACA TTCCGAATGT ACCCTGCCAGG
1141 ACCACTACTA GTCCCCACACG AGTCGTCAAGA GGAAACACCAC GTAGGAGGCT ACCGTGTACC
1201 CGGAGGAACG ATGTTACTTG TGAAATTG TGCTTATTAC AATGATCCAA AGCTATGGGA
1261 TGAACCAAGA AAGTTTAAGC CAGAAAGATT TGAAAGACTA GAAGGTGTTA GAGACGGTTA
1321 CAAAATGATG CCTTTGGTT CTGGACGAAG GAGTTGTCCT GGAGAAGGAT TGGTATTCTG
1381 AATGGTGCA TTGTCAATTGG GATGTATTAT TCAATGCTTT GATTGGCAAC GACTTGGGGA
1441 AGGATTTGGT GATAAGACTG AAGGAACCTGG ACTTACTTTG CCTAAAGCTC AACCTTGTAGT
1501 GGCCAAGGTG AGCCCCACGAC CTATAATGGC TAATCTCTT TCTCAGATT GAACATATAATT
1561 GTTTCTACC AAACATCCCC AAACATAGAAT ATTATTATTG GTTACATATA CAATGTAATC
1621 AATTTGAAC CATATTATAT CTCAATGTAT TCCTTTTAA AAAAAAAA AAAAA

SEQ. ID. NO. 168

1 MVNMFTPIIY APLLLAFYII TKHFLRKLRN NPPAPFLTFP FIGHLYLEKK PLQRTLAKIS
61 ERYGSVLLLE FGSRKVLLVS SPSAAEECLT KNDIIFANRP LLMAGKHLY NFTSLAWSSY
121 GDHWRLNLLRI TSVEMFSTHR LQMLHGRID EVKSMVKRLN SSAIAEKSV MKSMFFELML
181 NVMMRTIAGK RYYGENVEDI EEATRFKGLV QETFRIGGAT NIGDFLPALK LLVRKLEKSL
241 IVLQENRDEF MQELIKDCRK RMEKEGTVTD SEIEGNKKCL IEVLLTLQEN EPEYYKDEII
301 RSMLVLVLLSA GTDTSVGTM WALSLMLNH P ETLKKAQAEI DEHIGHERLV DESDINNL PY
361 LRCIINETFR MYPAGPLLVP HESSEETTVG GYRVPGGTML LVNLWAIHND PKLWDPRKF
421 KPERFEGLEG VRDGYKMPF GSRRSCPGE GLAIRMVALS LGCIIQCFDW QRLGEGLVDK
481 TEGTGLTPLK AQPLVAKCSP RPIMANLLSQ I

FIG. 85

NAME D104A-AE8 (69,1755)
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 169

1 CAAACACGCTT ACTATCTCCT AAATCTCCAC TCAAAAACAA AGAAGAGAAA GATTAAAAAC
61 TAATAATTAT GAAAGAGATG GTGCAAAACA ATATGAGCAC TTCTCTCTT GAAACTTAC
121 AAGCTACGCC CATGATATT CACTTCATCG TCCCTCTCTT CTGCTTATTCTT CTTCTCTCCA
181 AATCTCGCCG TAAACGTTTGC CCTCCAGGTG CAACTGGCTG GCCTCTCATT GGTAACATGA
241 TGATGATGGA CCAGTTAAC TACCGTGGCC TTGCCAAACT AGCCCAAAAAA TATGGTGGTG
301 TTTTTCACCT TAAAATGGT TATGTTACAA AAATGTTAGT CTCTGGTCCA GACGAAGCTC
361 GCCAAGTATT ACAGGAACAC GACATCATAT TTTCGAACCG TCCAGCGACC GTAGCCATAA
421 GTTACCTAAC ATATGACAGG GCAGACATGG CTTTGTCTGA CTATGGACTC TTCTGGCGGC
481 AGATGAGAAA ACTATGTGTA ATGAAACTCT TCAGCCGCAA ACGAGCTGAG TCATGGGACT
541 CAGTCGAGA CGAAGCGGAT TCCATGGTTA GAATTGTAAC AACCAACACA GGCACAGCTG
601 TTAACCTAGG TGAACCTGTT TTCACTCTCA CTGTAATAT TATCTACAGA GCTGCTTTG
661 GAACCTGGTTC TGAAGATGGA CAAGGGAGT TCATTAAATAT TATGCAAGAG TTTTCGAAAGC
721 TATTTGGTGC TTTCAATATA GCTGATTTA TTCCATGGCT AGGGTGGGTT GGTAAGCAGA
781 GTCTAAATAT TAGACTTGCT AAGGGTAGAG CGTCGCTTGA TGGGTTCTATT GATTGGATTAA
841 TTGATGACCA TATTATTAGA AAGAAAGCTT ATGTTAATGG CAAAATGAT GGAGGTGATC
901 GAGAAACTGA TATGGGGAT GAGCTTTAG CTTTTACAG TGAGGAAGCA AAAGTAAC TG
961 AGTCGGAAGA TTTGCAAGAT GCTATCAGAC TTACTAAGGA TAATATCAAA GCTATCATCA
1021 TGGATGTAAT GTTGGAGGG ACAGAACACAG TGGCTCTGC AATAGAATGG GGCATGGCAG
1081 AGCTTATGAG GAGTCCTGAA GATCTAAAAA AGGTACAACA AGAGCTGGCT AACGTTGTTG
1141 GACTCACAC AAAAGTTGAA GAATCTGACT TTGAAAAAATT AACATACTTA AGATGTTGTC
1201 TAAAAGAAAC TCTACGACTT CACCCCTCCAA TCCCTCTCCT CCTCCATQAG ACCGCCGAGG
1261 AATCCACCGT CCTCCGGCTAC CATATCCGG CAAGTCACA TGTTATTATA AATTCTATTG
1321 CCATTGGCG TGACAAAAAT TCATGGGAAG ATCCTGAAAC TTATAAACCA TCTAGGTTTC
1381 TCAAAGAAGG TGTACCAGAT TTAAAGGAG GTAATTGTTGA GTTGTACCA TTTGGGTCGG
1441 GTCCGGGGTC TTGCCCCGGAT ATGCAACTTG GGCTTATGCT ATTGGAAATG GCTGTGGCCC
1501 ATCTCTTCA TTGTTTACT TGGAATTGCA CAGATGGTAT GAAACCAAGT GAGCTTAAAA
1561 TGATGATAT TTTGGACTC ACTGCTCCAA GAGCTAATCG ACTCGTGGCT GTGCCCTACTC
1621 CACGTTGTT GTGTCCCCCTT TATTAATTGA AGAAAAAAGG TGGGGCTTT ACTTGATCATCA
1681 AAGAGTGGTG CTTGTGATTT TTCCACCTTT TGTTAAATA TACGAATTAT TATGATATAC
1741 GAATTCTTGG GCACA

SEQ. ID. NO. 170

1 MKEMVQNNMS TSLLETLQAT PMIFYFIVPL FCLFLLSKSR RKRLPPGPTG WPLIGNMMMF
61 DQLTHRGLAK LAQKYGGVFH LKMGYVHKIV VSGPDEARQV LQEHDIIIFSN RPATVAISYL
121 TYDRADMAFA DYGLFWRQMR KLCVMKLFSR KRAESWDSVR DEADSMVRIV TTNTGTAVNL
181 GELVFSLTRN IIYRAAFGTC SEDGQGEFIK IMQEFSKLFG AFNIADFIPW LGWVGKQLN
241 IRLAKARASL DGFIDSIIIDD HIRRKAYVN GKNDDGDRET DMVDELLAFY SEEAKVTESE
301 DLQNAIRLTK DNKAIIMDV MFGGTETVAS AIEWAMAELM RSPEDLKVKQ QELANVVGLN
361 RKVEESDFEK LTYLRCCILKE TLRHPPPIPL LLHETAEEST VSGYHIPAKS HVIINSFAIG
421 RDKNSWEDPE TYKPSRFKKE GVPDFKGGNF EFTIFGSGRR SCPGMQLGLY ALEMAVAHL
481 HCFTWELPDG MKPSELKMDD IFGLTAPRAN RLVAVPTPRL LCPLY

FIG. 86

NAME D105-AD6
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 171

1 TGTGCTGTG AGTGTGGAG AAGGCCCTCA ATATGGAGAT ACCATATTAC AGCTTAAAAA
61 TTGCAATTTC TTCAATTGCA ATTATCTTG TACTAAGATG GGCATGGAAA ATCTTGATT
121 ATGTGTGGTT AAAACCAAA GAATTGGAGA ATAACCTCAG ACAGCAGGGT TTCAGAAGGAA
181 ACTCTTACAA ATTCTGTGTT GGCGATATGA AAGAGATGAA GAAAATGGGT GAAGAAGCTA
241 TGTCTAAGCC AATCAATTTC TCTCATGACA TGATTTGCC TAGAGTTATG CCATTCATCC
301 ACAAAACCAT CACCAATTAT GTTAAGAATT GTATTGTGTG GTTGGGCCA AGACCAGCAG
361 CCTGTATCAC AGACCGGGAA CTTGTAAAGG AGGTGCTAAC GAAGAATTTC GTCTATCAGA
421 AGCCGCTTGG CAATCCACTC ACAAAAGTGG CAGCAACTGG AATTGCAGGC TATGAAACAG
481 ATAATGGGC TACACATAGA AGGCTTCTCA ATCTGTGTT TCACCTGAC AAGTTGAAGC
541 ATATGCTACC TGCATTCAA TTTACTGCTA GTGAGATGTT GAGCAAATTG GAGAAAGTTG
601 TTTCACCAAA CGGAACAGAG ATAGATGTGT GGCCATATTAC ACAAACTTG ACAAGTGATG
661 CCATTCAAG AACTGCGTTT GGAAGTAGTT ATGAAAGAGG AAGAAAGATT TTTGACCTTC
721 AAAAGAACAA ACTTCACTA ATTCTAGAG TTTCACGCAC AATATATTATT CCAGGATGGA
781 GGTTTGCC AACGAAAAGG AACAAAAGGA TGAAGCAAAT ATTTAATGAA GTACGAGCAC
841 TGGTATTGAA ATTATTAAG AAAAGGATGA GTATGATTGA AAATGGAGAA GCACCTGATG
901 ATTTATTGGG AATATTATTG GCATCCAATT TAAAGAAAT CCAACAAACAT GGAAACAAACA
961 AGAAATTGGG TATGAGTATT GATGAGGTGA TTGAAGAGTG TAAACTCTC TATTTTGCTG
1021 GGCAAGAGAC TACTTCATCT TTACTGTGAT GGACTATGAT TTTGTTGTG AAATATCCTA
1081 ATTGGCAAGA TAAAGCTAGA GAAGAGGTT TGCAAGTGTG TGGGAGTAGG GAAGTTGACT
1141 ATGACAAGTT GAATCAGCTA AAAATAGTAA CTATGATCTT AAACGAGGTC TTAAGGTTGT
1201 ATCCACCGAG ATATGTGATT AATCGAATGG TAAACAAAGA AACAAGTTA GGGAAATTG
1261 GTTTACCAAGC CGGGCTACAG CTCTGTACAG CAAACATGTT GTGCAACAT GATACTGAAA
1321 TATGGGGAGA TGATGCAATG GAGGTTCAATC CAGAGAGATT TAGTGATGGA ATATCCTAAAG
1381 CAACAAAAGG AAAACTGTG TTTTTCCAT TTAGTTGGGG TCCAAGAATA TGATTGGGC
1441 AAAATTGTC TATGTTAGAG GCTAAATGG CAATGGCTAT GATTCTGAAA ACCTATGCAT
1501 TTGAACCTCTC TCCATCTTAT GCTCATGCTC CTCACTCCACT ACTACTCAA CCTCAATATG
1561 GTGCTCAATT AATTGTGAC AAGTTGTAGA TATGGTCAAT TTGGAACCTG TTATGAAACT
1621 TTTATCATG TAATCAACCA TATTGAGGG AATGGTTTG AGGTTAAATC CTCGTGTGT
1681 TGTC

SEQ. ID. NO. 172

1 MEIPYYSLKI AISSFAIIIFV LRWAWKILNY VWLKPKELEK YLRQQGFKGN SYKFLFGDMK
61 EMKKMGEEM SKPINFSDM IWPVRMPFIH KTITNYGKNC IVWFGPRPAV LITDPELVKE
121 VLTKNFVYQK PLGNPLTKLA ATGIAGYETD KWATHRRLLN PAFHLDKLKH MLPAFQFTAS
181 EMLSKEKVV SPNGSTEIDVW PYLQTLTSDA ISRTAFGSSY EERKRIFDLQ KEQLSLLLEV
241 SRTIYIPGWR FLPTKRNKRM KQIFNEVRAL VFGIICKRMS MIENGEAPDD LLGILLASNL
301 KEIQOQHGNNK KFGMSIDEVI EECKLFYFAG QETTSSLVW TMILLCKYPN WQDKAREEVL
361 QVFGSREVDY DKLNQLKIVT MILNEVLRLY PAGXVINRMV NKEETKLGNIIC LPAGVQLVLP
421 TMLLQHDTEI WGDDAMEFNP ERFSDGISKKA TKGKLVFFPF SWGPRICIGQ NFAMLEAKMA
481 MAMILKTYAF ELSPSYAHAP HPLLLQPQYQ AQLILYKL

FIG. 87

NAME D109-AH8 (14,1697)

ORGANISM NICOTIANA TABACUM

SEQ. ID. NO. 173

1 CCGACACCAA GACATGGAGA ATTCCTGGGT AGTTTACGCC TTAACAGGCC TTCTTACATT
61 AGTTTTCTC TCAAAGTTTC TTCAATAGTCC TCGTCGAAA CAAATCTC CACCAGGTCC
121 AAAACCATGG CCTATTGTTG GCAATATACA TCTTCTTGGT TCCACCCCTC ACAGATCCCT
181 TCACGAACTT GCAAAAAGAT ACGGAGATTT AATGCTACTA AAGTCGGTT CGCGCAATGT
241 CCTTATTTA TCCTCCCCAG ATATGGCTAG AGAATTCTTG AAAACAAATG ATGCCATTG
301 GGCTTCTCGC CCTGAGCTG CGCTGGTAA ATATACTGCT TATAATTATT GCGACATGAC
361 ATGGGCACGT TATGGACCTT TTGGAGACA AGCAAGGAGG ATCTATCTCA ACGAGATTTT
421 CAATCTAAA CGTTGGATT CATTGGAGTA CATTGCGATA GAGGAAGGC ATAATTGTGAT
481 TTCACGCTCTT TTTGTTCTCT CTGGGAAGCC AATTCTTCTT AGAGACCATT TAACTCGGTA
541 CACTCTACA AGTATAAGTA GAACAGTATT GAGTGGAAAAA TATTTTAGCG AGTCACCTGG
601 CCAAAATTCA ATGATAACTT TGAAACAAATC GCAGGATATG CTTGATAAGT GTTTTTGCT
661 TAATGGTGTG ATCAATATTG GGGACTGGAT ACCTTGGCTT GCTTTCTTGG ATTGCAAGGG
721 TTATGTCAGG CAAATGAAGG AGTTGACATAG GAACCTCGAC AAATTTCTATA ACTTTGTGCT
781 AGATGATCAC AAGGCTAATA GGGGAGAGAA GAACCTTGTG CCAAGAGACA TGGTCGATGT
841 TTTGCTGCAG CAAGCTGAGG ATCCATAATCT TGAGGTCAAA CTCACCAATG ATTGTCGAA
901 GGGCTTAATG CAGGACTTATG TGCGTGGCGG CACGGACACC TCAGCAACAA CCGTTGAATG
961 GGCTTTTAT GAACTTCTTA GACAACCTAA GATTATGAAG AAAGCACAA AAGAGCTAGA
1021 CCTTGTCATT TCACAGGACA GATGGTTCA AGAAAAAGAT TACACTCAC TCCCCTACAT
1081 TGAGTCATC ATCAAGGAAA CATTGAGGCT TCACCCAGTA AGCACCATGC TTCCACCGCG
1141 CATTGCCCTG GAGGATTGTC ATGTAGCAGG CTATGACATA CCTAAAGGTA CAATTAAAT
1201 TGTGAACACT TGGAGTATTG GAAGAAATTG ACAGCATTTG GAGTCACCCAG AAGAATTCT
1261 TCCGGAGGG TTTGAAGGGG AGAAATATTG TGTCACAGGA CAACATTGG CGCTCTTGCC
1321 ATTTGGCCCGC GGCGGAGAA AGTGGCCAGG ATACAGTCTT GGGATTGTTA TAATTAGGGC
1381 AACTTTAGCT AACTTGTGCA ATGGATTCAA CTGGAGATTG CCTAATGGTA TGAGTCAGA
1441 AGACATTAAGC ATGGAAGAGA TTATGGGCT AATTACACAC CCCAAAGTCG CACTTGACGT
1501 GATGATGGAG CCTCGACITC CCAACCATCT TTACAAATAG TGGATAATTA AAACCATAA
1561 AATCGTTTG TTATATGCAT GTCTCATATT TGAGTGGTC AAAATGTTG TTTCTATCA
1621 TGGATGTTCA GTGGAGGTT GGGAAATTCA AGTCATTAAC GTGTGAAAAAT ATTTAAATT
1681 TAAAAAAAAA AAAAAAA

SEQ. ID. NO. 174

1 MENSVVLL TGLLTLVFLS KFLHSPRRKQ NLPPGPWPW IVGNIHLLGS TPHRSIHLERA
61 KRYGDILMLK FGSRNVLILS SPDmareFLK TDAlIwasRP ELAAGKYAY NYCDMTWARY
121 GPFWRQARRI YLNEIFNPKR LDSFEYIRIE ERHNLISRLF VLSGKPILLR DHLTRYTLTS
181 ISRTVLSGKY FSESPQNSM ITLKQLQDML DKWFLLNGVI NIGDWIPWLA FLDLQGVVKQ
241 MKELHRNFDK FHNFVLDDHK ANRGEKNEFP RDMVDVLLQQ AEDPNLEVKL TNDCVKGIMQ
301 DLLAGGTDTS ATTVEWAFYE LLRQPKIMKK AQQEELDLVIS QDRWVQEKDY TQLPYIESII
361 KETLRLHPVS TMLEPRIALE DCHVAGYDIP KGTLLIVNTW SIGRNSQHWE SPEEFIPERF
421 EGKNIGVTGQ HFALLPFGAG RRKCPGYSLG IRIIRATLAN LLHGFNWRLP NGMSPEDISM
481 EEIYGLITHP KVALDVMMEP RLPHLYK

FIG. 88

NAME D110-AF12 (166,1631)

ORGANISM NICOTIANA TABACUM

SEQ. ID. NO. 175

1 ACTGTTCAAA TCACAGTAAC AGCATCTGT GCTGCCATAA TAATTACTCT AGTGGTGTG
61 ATATGGAGAG TGCTGAATTG GGTTGGTTC AGACCAAAGA AGCTGGAAA GCTACTGAGG
121 AAACAAGGTC TCAAAGGCAA TTCCACAGG ATTTGTATG GGATATGAA GGAGCTTCT
181 GGTATGATTA AGGAAGCTAA CTCCAAACCC ATGAATCTT CTGATGATAT TGCCCAAGA
241 TTGGTCCCTT TCTTTCTTGA TACCATCAAG AAATATGGG AAAAATCCTT TGTATGTTG
301 GTCTCCAAA CGCTGTTT TGTCATGGAC CCCGAGCTTA TAAAGGAAGT ATTCTCCAAA
361 AACTATCTGT ATCAAAGGC TCATTCAAAT CCATTAACCA AGTTACTGGC ACAAGGACTT
421 GTAAGCCAAG AGGAAGACAA ATGGGCCAAA CATAGAAAAA TCGTCACTCC TGCCCTCCAC
481 CTGGAGAAGC TAAAGCATAT GCTTCAGCT TTTGTTGA GCTGACTGA GATGCTGAGC
541 AAATGGGAAG ACATTTGTC AGTTGAGGGC TCACATGAGA TAGATATATG GCCTGGCCTT
601 CAACAATTAA CTAGTGTGT GATCTCTCGG ACAGCCTTG GCAGTAGCTA TGAAGCAGGT
661 AGAAGGATAT TTGAACCTCA AAAGGAACAA GCTCAATTTC TTATGGAAGC TATACGCTCC
721 GTTTPATATTG CAGGCTGGAG GTTTTGCCA ACAAAAGAGGA ACAGAAGAAT GAAGGAAATT
781 GAAAAGGATG TTCAAGCCTT AGTTAGAGGT ATTATTGATA AAAGAGTAAA GTCAATGAAA
841 GCAGGAGAGG TGAATAATGA GGATCTGCTT GGTATATTGC TGGAAATCTAA TTTAAAGAA
901 ATTGAACAGC ATGGAAACAA GGATTTGGA ATGAGCTTG AAGAAGTCAT TCAAGAATGC
961 AAGTTATTCT ATTGCTGG CCAAGAAACT ACATCAGTGT TGCTCTATG GACTCTAATA
1021 TTGCTGAGCA GGCATCAGGA TTGGCAAGCA CTGGCCAGAG AAGAGGTGTT GCAAGTCTT
1081 GGGAAATCAGA AACCAAGATT TGATGATTA AATCGTCTAA AAATTGTTAC AATGATCTT
1141 TACAGACTTT TAAGGCTCTA TCCCCAGTA GTGACACTTA CCCGAAGGCC TAAGGAAGAC
1201 ACTGTATTAG GAGATGTATC TCTACAGCA GTGTTGTTAA TCTCTTACCT AGTGATCTT
1261 TTGCTCACG ACGAAGAGAT ATGGGTAAA GATGCAAAGA AGTTCAAGCC AGAGAGATT
1321 AGAGATGGAG TCTCAAGTGC AACAAAGGGT CAAGTCACTT TTTTCCATT TACTTGGGGT
1381 CCCAGAATAT GCATTGGACA AAATTGTCCT ATGTTAGAAG CAAAGACTAC TTGGCTATG
1441 ATCCTACAAC GCTCTCCCTT TGAACGTCTC CCATTTATG CACATGCTCC TCAGTCCATA
1501 ATAATTCTTAC AACCCTAGTA TGTTGCTCCA CTTATTTGC ATAAAATATA GTTTATTACT
1561 TGTAAGTAGT GTCTCGTTT ATGTTAACGA TGAGTCCAAA ATGTTAAGGC TTGTAGAACT
1621 GCAAAATGGG A

SEQ. ID. NO. 176

1 MKELSGMIKE ANSKPMNLSD DIAPRLVPFF LDTIKKYGKK SFVWLGPKPL VFVMDPELIK
61 EVFSKNLYQ KPHSNPLTKL LAQGLVSQEE DKWAKHRKIV TPAFHLEKLK HMLPAFLSC
121 TEMLSKWEDI VAVEGSHEID IWPGLQQLTS DVISRTAFGS SYEAGRRIFE LQEQAQFLM
181 EAIRSVYIPG WRFLPTKRNR RMKEIEKDVO ALVRGIIDKR VKSMKAGEVN NEDLLGILLE
241 SNFKEIEQHG NKDFGMSIEE VIQECKLFYF AGQETTSVLL VTLLILLSRH QDWQALAREE
301 VLQVFGNQKP DFDFGLNRLK1 VTMILYESLR LYPPVVTLTR RPKEDTVLGD VSLPAGVLIS
361 LPVILLHHDE EIWKDAKKF KPERFRDGVS SATKGQVTFF PFTWGPRICI GQNFMALEEK
421 TTLAMILQRF SFELSPSYAH APQSIITLQP QYGAPLILHK I

FIG. 89

NAME D112-AA5
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 177

1 ATTTATCTCT GAAAATGCAA TTCTTCAGCT TGTTTCCAT TTCCCTATTG CTATCTTCC
61 TATTTTTGTT GAGGAATGG AAGAACTCCA ATAGCCAAAG CAAAAAATTG CCACCAGGTC
121 CATGGAAAAT ACCAATACTA GGAAGTATGC TTCAATATGAT TGGTGGAGAA CGCACCATG
181 TCCTTAGAGA TTAGCCAAA AAAGATGGAC CACTTATGCA CCTTCAGTTA GGTAAAATT
241 CTGCAGTTGT GGTTACTCT AGGGACATGG CAAAAGAAGT GCTAAAACAT CATGACGTG
301 TTTTGCCATC TAGGCCAAA ATTGTAGCCA TGGACATTAT CTGTTATAAAC CAGTCCGACA
361 TTGCCCCCTTAG CCCTTATGGC GACCACTGG GACAAATGCG TAAAATTGTC GTCATGGAAC
421 TTCTCAATGC AAAGAATGTT CGGTCTTCA GCTCCATCAG ACGTGATGAA GTCTGTCGTC
481 TCATTGACTC TATCCGGTCA GATTCTTCTT CAGGTGAGCT AGTTAATTTC ACGCAGAGGA
541 TCATTGGTT TGCAAGCTCC ATGACGTGTA GATCAGCATT TGGGCAAGTA CTCAAGGGC
601 AAGACATATT TGCCAAAAG ATCAGAGAA TGAAATAGGATT AGCAGAAAGC TTGATGTTGG
661 TAGACATCTT CCCTACATAC AAGTTCTTC ATGTTCTCAG TGGAATGAAG CGTAAACTT
721 TGAATGCCCA CCTTAAGGTA GACGGCATTC TTGAGGATGT CATCAACGAG CACAAGAAAA
781 ATCTTGAGC TGGCAAGAGT AATGGCGCAT TAGGAGGCGA AGATCTAATT GATGTCCTAC
841 TGAGACTTAT GAATGACACA AGTCTTCAT TTCCCATCAC CAACGACAAAT ATCAAAGCTG
901 TTGTTGGTGA CATTTTGCT GCCGGAACAG AAACCTCATC ACAACAAACT GTATGGCCA
961 TGGCTGAAAT GATGAAGAA CCAAGTGTAT TCGCCAAAGC TCAAGCAGAA GTGGAGAAG
1021 CCTTAAAGGA CAAAGTATCT TTGATGAAA ATGATGTTGA GGAGCTGAAA TACTTAAAGT
1081 TAGTCATTA AGAAACTTTG AGACTTCATC CACCGTCTCC ACTTTTGGTC CCAAGAGAAT
1141 GCAGGGAAAGA TACGGATATA AACGGCTACA CTATTCATGCA AAAGACCAA GTTATGGTTA
1201 ATGTTGGGAGA ATTGGGAAGA GATCaaaaAT ATGGGATGA CGCGGAAAGC TTAAAGCCAG
1261 AGAGATTGGA GCAATGTTCT GTAGATATTT TTGGTAATAA TTTTGAGTTT CTTCCCTTG
1321 GCGGGGAGC GAGAATTGTC CCTGGATGT CATTGGTTT AGCTAATCTT TACTTACCAT
1381 TGGCTCAATT ACTCTATCAC TTGACTGGA AACTCCCAAC CGGAATCAAG CCAAGAGACT
1441 TGGACTTGAC CGAATTATCG GGAATAACTA TTGCTAGAAA GGTTGACCTT TACTTAAATG
1501 CTACTCTTA TCAACCTCT CGAGAGTAAT TTACTATTGG CATAAACATT TTAAATTTC
1561 TTCATCAACC TC

SEQ. ID. NO. 178

1 MQFFSLVSLF LFLSFLFLLR KWKNNSNSQSK KLPPGPWKIP ILGSMILHMG GEPHHVLRDL
61 AKKDGPIMHL QLGEISAVVV TSRDMAKEVL KTHDVVFASR PKIVAMDIIC YNOSDIAFSP
121 YGDHWQRQMRK ICVMELLNAK NVRSFSSIRR DEVVRLLIDS1 RSDSSSGELV NFTQRIIWFA
181 SSMTCRSAGF QVLKGQDIFA KKIREVIGLA EGFDVVDIFP TYKFLHVLSG MKRKLLNAHL
241 KVDAIVEDVI NEHKKNLAAG KSNGALGGED LIDVLLRLMN DTSLOQFPITN DNIKAVVDM
301 FAAGTETSS TTVWAMAEMM KNPSVFAKAQ AEVREAFRDK VSFDENDVEE LKYLKLVIKE
361 TLRLHPPSPL LPREREDIT DINGYTIPAK TKVMVNWL GRDPKYWDDA ESFKPERFEQ
421 CSVDIFGNNF EFLPFGGRR ICPGMSFGLA NLYLPLAQQL YHFDWKLPTG IKPRDLDLTE
481 LSGITIARKG DLYLNATPYQ PSRE

FIG. 90

NAME D120-AH4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 179

1 ATAATGCTTT CTCCCATAGA AGCCATTGTA GGACTAGTAA CCTTCACATT TCTCTTCTTC
61 TTCCATGGAA CAAAAAAATC TCAAAAACCT TCAAACCCCT TACCACCGAA AATCCCCGGA
121 GGATGGCCGG TAATCGGCCA TCTTTTCCAC TTCAATGACG ACGGCGACGA CGGTCCATTA
181 GCTCGAAAAC TC GGAGACTT AGCTGACAAA TAGGGCCCCG TTTTCACTTT TCGGCTAGGC
241 CTTCCCCTTG TCTTAGTTGT AAGCAGTTAC GAAGCTGTAA AAGACTGT TTCTACAAAT
301 GACCCATTT TTTCAATCG TCCAGCTTTT CTTTACGGCG ATTACCTTGG CTACAATAAT
361 GCCATGCTAT TTTGGCCAA TTACGGACCT TACTGGCGAA AAAATCGAAA ATTAGTTATT
421 CAGGAAGTTTC TCTCCGCTAG TCGTCTCGAA AAATTCAAAAC ACGTGAGATT TGAAGAATT
481 CAAGCGAGCA TTAAGAATTT ATATACTCGA ATTGATGGAA ATTCAAGTAC GATAAAATTAA
541 ACTGATTGGT TAGAAGAATT GAATTTGGT CTGATCGTGA AGATGATCGC TGAAAAAAAT
601 TATGAATCCG GTAAAGGAGA TGAACAAGTG GAGAGATTAA AGAAAGCCTT TAAGGATTTT
661 ATGATTTTAT CAATGGAGTT TGTGTTATGG GATGCATTTC CAATTCCATT ATTAAATGG
721 GTGGATTTC AAGGGCATGT TAAGGCTATG AAAAGGACTT TTAAAGATAT AGATTCTGTT
781 TTTCAGAATT GGTTAGGGAA ACATATTAAT AAAAGAGAAA AAATGGAGGT TAATGCAGAA
841 GGGAAATGAAAC AAGATTTCAT TGATGTTGGT CTTTCAAAAA TGAGTAATGA ATATCTGGT
901 GAAGCTTACT CTCGTGATAC TGTCATTAAGG GCAACGGGT TTAGTTGGT CTTGGATGCA
961 GCAGACACAG TTGCTCTTCATAAAATTGG GGAATGGCAT TATTGATAAA CAATCAAAAG
1021 GCCTTGACGA AAGCACAAAGA AGAGATAGAC AAAAAAGTTG GTAAGGACAG ATGGTAGAA
1081 GAGAGTGTATAA TTAAGGATTG GGTATACCTC CAAGCTATTG TTAAAGAAAGT GTTACGATTA
1141 TATCCACCAG GACCTTGTGTT AGTACACAC GAAAATGTAG AAGATTGTGTT TGTTAGTGG
1201 TATCACATTC CTAAGGGAC AAGATTATTG GCAACACGTCA TGAAAATGCT ACGTGATCCT
1261 AAACTCTGGC CTGATCCTGA TACTTTCGAT CCAGAGAGAT TCATTGCTAC TGATATTGAC
1321 TTTCGGGGTC AGTACTATAA GTATATCCCG TTTGGTTCTG GAAGACGATC TTGTCCAGGG
1381 ATGACTTATG CATTGCAAGT GGAACACTTA ACAATGGCAC ATTTGATCCA AGGTTCAAT
1441 TACAGAACTC CAAATGACGA GCCCTTGGAT ATGAAGGAAG GTGCAGGGAT AACTATACGT
1501 AAGGTAATC CTGTTGAACT GATAATAGCG CCTCGCCTGG CACCTGAGCT TTATTAACAC
1561 CTAAGATCTT TCATCTTGGT TGATCATTGT ATAATACTCC TAAATGGATA TTCATTAC
1621 TTTTATCAAT TAA

SEQ. ID. NO. 180

1 MLSPIEAIVG LVTFTFLFFF LWTKKSQKPS KPLPPKIPGG WPVIGHLFHF NDDGDDRPLA
61 RKLGDILADKY GPVFTFRLGL PLVLVVSSYE AVKDCFSTND AIFSNRPAFL YGDYLGYNNA
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKHVRFARIQ ASIKNLYTRI DGNSSINTL
181 DWLEELNFGL IVKMIAGKNY ESGKGDEQVE RFKKAFKDFM ILSMEFVLWD AFPIPLFKWV
241 DFQGHVKAMK RTFKDIDSVF QNWLGHEHINK REKMEVNAEG NEQDFIDVVL SKMSNEYLGE
301 GYSRDTVIKA TVFSIVLDAA DTVALHINWG MALLINNQKA LTKAQEEIDT KVGKDRLWVEE
361 SDIKDLVYLQ AIVKEVLRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLLRDPK
421 LWPDPDTFDP ERFIATDIDF RGQYYKYIIF GSGRRSCPBM TYALQVEHLT MAHLIQGFNY
481 RTPNDEPLDM KEGAGITIRK VNPVELIIAP RLAPELY

FIG. 91

NAME D121-AA8
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 181

1 AATCCATAAT GCTTTCTCCC ATAGAACGCA TTGTAGGACT AGTAACCTTC ACATTTCTCT
61 TCTTCTCCT ATGGACAAAA AAATCTAAA AACCTTACAA ACCCTTACCA CCGAAAATCC
121 CGGGAGGATG GCCGTAATC GGCCATCTTT TCCACTTCAA TGACGACGGC GACGACCGTC
181 CATTAGCTCG AAAACTCGGA GACTTAGCTG ACAAAATACGG CCCCGTTTC ACTTTTCGGC
241 TAGGCCTTCC CCTTGCTTA GTTGTAAAGCA GTTACGAAGC TGAAAAGAC TGTTTCTCTA
301 CAAATGACGC CATTTTTCC AATCGTCCAG CTTTTCTTTA CGCCGATTAC CTTGGCTACA
361 ATAATGCCAT GCTATTTTG GCCAATTACG GACCTTACTG GCGAAAAAAT CGAAAATTAG
421 TTATTCAAGG AGTTCTCCT GCTAGTCGTC TCGAAAATT CAAACACGTG AGATTGCAA
481 GAATTCAAGC GAGCATTAAG ATTATATAA CTCGAATTGA TGGAAATTG AGTACGATAA
541 ATTTAACTGA TTGGTAGAA GAATTGAATT TTGGTCTGAT CGTAAGATG ATCGCTGGAA
601 AAAATTATGA ATCCGGTAA GGAGATGAAC AAGTGGAGAG ATTAAAGAAA GCCTTAAAGG
661 ATTTTATGAT TTATCAATG GAGTTTGTGT TATGGGATGC ATTTCCAATT CCATTATTTA
721 AATGGGTGGA TTTCAGGG CATGTTAAGG CTATGAAAG GACTTTAAAG GATATAGATT
781 CTGTTTTCA GAATTGGTTA GAGGAACATA TTAATAAAAG AGAAAAAAATG GAGGTTAATG
841 CAGAAGGGAA TGAAACAGAT TTCATTGATG TTGGTCTTTC AAAATGAGT AATGAATATC
901 TTGGTGAAGG TTACTCTCGT GATACTGTCA TAAAGCAAC GGCTTTAGT TTGGTCTTGG
961 ATGCAGCAGA CACAGTTGCT CTTCACATAA ATGGGGAAAT GGCAATTATG ATAAACAAATC
1021 AAAAGGCCCT GACGAAAGCA CAAAGAGAGA TAGACACAAA AGTTGTAAG GACAGATGGG
1081 TAGAAGAGAG TGATATTAAG GATTTGGTAT ACCTCCAAGC TATTGTTAAA GAAGTGTAC
1141 GATTATATCC ACCAGGACCT TTGTTAGTAC CACACGAAAA TGTAAGAGAT TGTGTTGTTA
1201 GTGGATATCA CATTCTAAA GGGACAAGAT TATTGCAAA CGTCATGAAA CTGCAACGTG
1261 ATCCTAAACT CTGGTCTGAT CCTGATACTT TCGATCCAGA GAGATTCAATT GCTACTGATA
1321 TTGACTTCG TTGTCAGTAC TATAAGTATA TCCCGTTGG TTCTGAAAGA CGATCTGTC
1381 CAGGGATGAC TTATGCATTG CAAGTGGAACTTAAACAAT GGCAATTG ATCCAAGGTT
1441 TCAATTACAG AACTCCAAAT GACGAGCCCT TGGATATGAA GGAAGTGCAGGATAACTA
1501 TACGTAAGGT AAATCCTGTG GAACTGATAA TAGCGCCTCG CCTGGCACCT GAGCTTTATT
1561 AAAACCTAAG ATCATCTTGC TTGAT

SEQ. ID. NO. 182

1 MLSPIEAIVG LVTFTFLFFF LWTKKSQKPS KPLPPKIPGG WPVIGHLFHF NDDGDDRPLA
61 RKLGLADKY GPVFTFRLGL PLVLVVSSYE AVKDCFSTND AIFSNRPAFL YGDYLGYNNA
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKHVRFARIQ ASIKNLYTRI DGNSSTINLT
181 DWLEELNFGI IVKMIAGKNY ESGKGDEQVE RFKKAFKDFM ILSMEFVLWD AFFIPLFKWV
241 DFQGHVKAMK RTFKDIDSVE QNWLEEHINK REKMEVNAEG NEQDFIDVVL SKMSNEYLGE
301 GYSRDTVIKA TVFSLVLDAA DTVALHINWG MALLINNQKA LTKAQEEIDT KVGKDRWEE
361 SDIKDLVYLQ AIVKEVRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLQRDPK
421 LWSDPDTFDP ERFIATDIDF RGQYYKYIPF GSGRRSCPBM TYALQVEHLT MAHLIQGFNY
481 RTPNDEPLDM KEGAGITIRK VNPVELIIAP RLAPELY

FIG. 92

NAME D122-AF10
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 183

1 CTAAAACCTAC ATAATGGTTT CTCCCGTAGA AGCCATTGTA GGACTAGTAA CCCTTACACT
61 TCTCTTCTAC TTCCATGGC CCAAAAAATT TCAAATACCT TCAAAACCAT TACCACCGAA
121 AATTCCCGGA GGGTGGCCGG TAATCGGCCA TCTTTTCTAC TTGATGATG ACCGGCACGA
181 CGGTCCATTA GCTCGAAAC TCGGAGACTT AGCTGACAAA TACGGCCGG TTTTCACTTT
241 CCGGCTAGGC CTTCCGTTG TGTTAATTGT AAGCAGTTAC GAAGCTGTA AAGACTGCTT
301 CTCTACAAAT GACGCCATT TCTCCAATCG TCCAGCTTTT CTITACGGTG AATACCTTGG
361 CTACAATAAT GCCATGCTAT TTTGACAAA ATACGGACCT TATTGGCGAA AAAATAGAAA
421 ATTAGTCATT CAGGAAGTTC TCTCTGCTAG TCGTCTGCAA AAATTGAAGC ACCTGAGATT
481 TGGTAAATT CAAACGAGCA TTAAAGAGTTT ATACACTCGA ATTGATGGAA ATTGAGTAC
541 GATAAACTCA ACTGATTGGT TAGAAGAATT GAATTTGGT CTGATCGTA AAATGATCGC
601 TGGGAAATAT TATGAATCCG GTAAAGGAGA TGAACAACTG GAGAGATTAA GGAAAGCGTA
661 TAAGGATTTT ATAATTTTT CAATGGAGTT TGTGTTATGG GATGCTTTTC CAATTCCATT
721 GTTCAATGGT CGGGATTTTC AAGGCTATGT TAAGGCGATG AAAAGGACAT TTAAGGATAT
781 AGATTCTGTT TTTCAGAATT GGTAGAGGA ACATGTCAAG AAAAGAGAAA AAATGGAGGT
841 TAATGCACAA GGGATGAAC AAGATTTCAT TGATGTTGGT CTTTCAAAAA TGACTAATGA
901 ATATCTTGAT GAAGGTTACT CTCGTGATAC TGTCTATAAA GCAACAGTGT TTAGTTGGT
961 CTTGGATGCT GCGGACACAG TTGCTCTTC CATGAATTGG GGAATGGCAT TACTGATAAA
1021 CAATCACAT GCCTTGAGA AAGCACAAAGA AGAGATCGAT AAGAAAGTGT GTAAGGAAAG
1081 ATGGGTAGAA GAGAGTGTAA TTAAAGGATT GGTCTACCTC CAAGCTATTG TAAAGAAGT
1141 GTTACGATTA TATCCACCAAG GACCTTTATT AGTACCTCAT GAAAATGTAG AGGATTGTGT
1201 TGTTAGTGGA TATCACATTCT CTAAGGGAC TAGACTATTG CGCAACGTAA TGAATATGCA
1261 GCGCGATCCT AACTCTGGT CAAACCTGAA TAAGTTTGAT CCAGAGAGAT TCTTCGCTGA
1321 TGATATTGAC TACCGTGGTC AGCAGTATGA GTTTATCCCA TTTGGTTCTG GAAGACGATC
1381 TTGTCCGGGG ATGACTTATG CATTACAAGT GGAACACCTA ACAATAGCAC ATTTGATCCA
1441 GGGTTCAAT TACAAAACCTC CAAATGACGA GCCCTTGGAT ATGAAGGAAG GTGCAGGATT
1501 AACTATACGT AAAGTAAATC CTGTAGAAGT GACAATTACG GCTCGCTGG CACCTGAGCT
1561 TTATTAAC CTTAGATGTT TTATCTTGAT TGTACTAATA TATATATGCA GAAAAAATTG

SEQ. ID. NO. 184

1 MVSPVEAIVG LVTILLLFYF LWPKKFQIPS KPLPPKIPGG WPVIGHLYF DDDGDDRPLA
61 RKLGLDADKY GPVFTFRGL PLVLIVSSYE AVKDCFSTND AIFSNRP AFL YGEYLGYNNA
121 MLFLTKYGPY WRKNRKLVIQ EVLSASRLEK LKHVRFGKIQ TSIKSLYTRI DGNSSTINLT
181 DWLEELNFGI IVKMIAGKNY ESGKGDEQVE RFRKAYKDFI ILSMEFVIWD AFPIPLFKWV
241 DFQGYVKAMK RTFKDIDSVF QNWLEEHVKK REKMEVNAQG NEQDFIDVVL SKMSNEYLDE
301 GYSRDTVIKA TVFSLVLDAA DTVALHMNWG MALLINNQHA LKKAQEEIDK KVGKERVVEE
361 SDIKDLVYLQ AIVKEVLRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLQRDPK
421 LWSNPDKFDP ERFFADDIDY RGQHYEFIPF GSGRRSCPBM TYALQVEHLT IAHLIQGFNY
481 KTPNDEPLDM KEGAGLTIRK VNPVEVTITA RLAPELY

FIG. 93

NAME D128-AB7
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 185

1 CGAGGCCTCCC CACCAAAAAA TCATTTCTCT CGTCTAAAAT GGATCTTCCTC TTACTAGAGA
61 AGACCTTAAT TGGCTTTTC TTTGCCATT TAATCGCTT AATTGTCTCT AAACCTCGTT
121 CAAAGCGTTT TAAGCTTCCT CCAGGACCAA TTCCAGTACC AGTTTTGGT AATTGGCTTC
181 AAGTTGGTGA TGATTTAACACAGAAATC TTACTGATTA TGCCAAAAAA TTTGGCGATC
241 TTTCTTGTT AAGAATGGGT CAACGTAACT TAGTTGTTGT GTCATCTCT GAATTAGCTA
301 AAGAAGTTT ACACACACAA GGTTGTAAT TTGGTTCAAG AACAAAGAAAT GTTGTGTTG
361 ATATTTTAC TGAAAAGGT CAAGATGG TTTTACTGT ATATGGTGA CATTGGAGAA
421 AAATGAGGAG AATTATGACT GTACCATTTT TTACTAATAA AGTTGTGCAA CAGTATAGAG
481 GGGGGGGGA GTTGGAGGTG GCAAGTGTAA TTGAGGATGT GAAAAAAAT CCTGAATCTG
541 CTACTAATGG GATCGTATTA AGGAGGAGAT TACAATTAAAT GATGTATAAT AATATGTTTA
601 GGATTATGTT TGATAGGAGA TTTGAGAGTG AAGATGATCC TTGTTGTT AAGCTTAAGG
661 CTTTGAATGG TGAAAGGAGT AGATGGCTC AAAGTTTGA GTATAATTAT GTTGATTTTA
721 TTCCAATTTC GAGGCCTTT TTGAGAGGTT ATTTGAAGAT CTGTAAGAA GTTAAGGAGA
781 AGAGGCTGCA GCTTTCAAA GATTACTTTG TTGATGAAAG AAAGAAGCTT TCAAATACCA
841 AGAGCTCGGA CAGCAATGCC CTAATAATGTG CGATTGATCA CATTCTTGAG GCTCAACAGA
901 AGGGAGAGAT CAATGAGGAC AACGTTCTTT ACATTGTTGA AAACATCAAT GTTGTGCAA
961 TTGAAACAC ATTATGGTCA ATTGACTGGG GTATCGCCG GCTAGTCAC ACCCTCAC
1021 TCCAAAAGAA ACTGCGCGAC GAGATTGACA CAGTTCTTG ACCAGGAGTG CAAGTGAETG
1081 AACCAGACAC CCACAAGCTT CCACACCTTC AGGCTGTGAT CAAGGAGGCA CTTCGCTCTCC
1141 GTATGCCATT CTCTCTTATA GTCCCCAACCA TGAACCTTCA CGACGCAAAG TTGGGGGGT
1201 TTGATATTCC AGCAGAGAGC AAAATCTTGG TTAAACGTTG GTGGTTAGCT AAACACCCGG
1261 CTCATTGGAA GAAACCCGAA GAGTTTCAAGAC CCGAGAGGTT CTTTGAAGAG GAGAACATG
1321 TTGAGGCCAA TGGCAATGAC TTCAGATATC TTCCGTTTGG CGTTGGTAGG AGGAGCTGCC
1381 CTGGAATTAT ACTTGCATTG CCAATTCTTG GCATCACTTT GGGACGTTTG GTTGAAGACT
1441 TTGAGCTGTT GCTCCCTCCA GGGCAGTGCAG ACCTCGACAC CACAGAGAAA GGTGGACAGT
1501 TCAGTCCTCCA CATTGGAG CATTCCACCA TTGTTGAA ACCAAGGTCT TTCTGAACCTT
1561 TGTGATCTTA TTAATTAAGG GTTCTGAAG AAATTTGATA GTGTTGGATA TTAAGGGCGA
1621 ATT

SEQ. ID. NO. 186

1 MDLLLIEKTL IGLFFAILIA LIVSKLRSKR FKLPPIPIV PVFGNWLQVG DDLNHRNLTD
61 YAKKFGLFL LRMQRNLVV VSSPELAKEV LHOGVEFGS RTRNVVFIDF TGKGQDMVFT
121 VYGEHWRKMR RIMTPFFTN KVQQYRGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNMFRIM FDRFESEDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPFLRGYLK
241 ICKEVKEKRL QLFKDYFVDE RKKLSNTKSS DSNALKAID HILEAQQKGE INEDNVLYIV
301 ENINVAIET TLWSIEWGIA ELVNPHPIQK KLRDEIDTVL GPGVQVTEPD THKLPLYQAV
361 IKEALRLRMA IPLLVPHMNL HDALKGGFDI PAESKILVNA WWLANNPAHW KKPEEFRPER
421 FFEEEKHVEA NGNDFRYLPF GVGRSCPGL ILALPILGIT LGRLVQNTEL LPPPGQSKLD
481 TTEKGQQFSL HILKHSTIVL KPRSF

FIG. 94

NAME D129-AD10
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 187

1 CAACACGCTT ACTATCTCCT AAAATCTCCAC TCAAAAAACAA AGAAGAGAAA GATTTAAAAC
61 TAATAATTAT GAAAGAGATG GTGCAAAACA ATATGAGCAC TTCTCTTCTT GAAACTTAC
121 AAGCTACGCC CATGATATT CACTTCATCG TCCCTCTCTT CTGCTTATTC CTTCTCTCCA
181 AATCTGCCG TAAACGTTG CCTCCAGGTC CAACTGGCTG GCCTCTCATC GGTAACATGA
241 TGATGTGGA CGCAGTTAAC CACCGTGGCC TTGCCAAACT AGCCCAAAAAA TATGGTGGTG
301 TTTTCACCT TAAAATGGGT TATGTTACAA AAATTGTAAGT CTCTGGTCCA GACGAAGCTC
361 GCCAAGTATT ACAGGAACAC GACATCATAT TTTCGAACCG TCCAGCGACC GTAGCCATAA
421 GTTACCTAAC ATATGACAGG GCAGACATGG CTTTGCTGA CTATGGACTC TTCTGGCGGC
481 AGATGAGAAA ACTATGTGTA ATGAAACTCT TCAGCCGCAA ACGAGCTGAG TCATGGGACT
541 CAGTTGCCAGA CGAACGCCAT TCCATGGTTA GAATTGTAAC AACCAACACA GGCACAGCTG
601 TTAACCTAGG TGAACCTGTT TTCAGTCTCA CTCGTAATAT TATCTACAGA GCTGCTTTG
661 GAACTTGTTC TGAAGATGGA CAAGGCCAGT TCATTGAAAT TATGCAAGAG TTTTCGAAGC
721 TATTTGGCGC TTTCAATATA GCTGATTTA TTCCATGGCT AGGGTGGTT GGTAAGCAGA
781 GTCTAAATAT TAGACTTGCT AAGGCTAGAG CGTCGCTTGA TGGGTTCATC GATTGATTAA
841 TTGATGACCA TATTATTAGA AAGAAAGCTT ATGTTAATGG CAAAATGAT GGAGGTGATC
901 GAGAAACTGA TATGGTGGAT GAGCTTTAG CTTTTTACAG TGAGGAAGCA AAAGTAAC TG
961 AGTCCGAAGA TTTCAGAAAT GCTATCAGAC TTACTAAGGA TAGTATCAA GCTATCATCA
1021 TGGATGTAAT GTTGGAGGG ACAGAACAG TGGCTCTGC AATAGAAATGG GGCATGGCAG
1081 AGCTTATGAG GAGTCCTGAA GATCTTTAAA AAGTACAACA AGGGCTGGCT AACGTTGTTG
1141 GACTCAACAG AAAAGTTGAA GAATCTGACT TTGAAATTAAACATCTTA AGATGTTGTC
1201 TAAAAGAAAC TCTACGACTT CACCCCTCAA TCCCTCTCCT CCTCCATGAG ACCGCCAGG
1261 AATCCCCCGT CTCCGGCTAC CATATTCCGG CAAAGTCACA TGTTATTATA AATTCTTTG
1321 CCATTGGCGC TGACAAAAAT TCATGGAAAG ATCCTGAAAC TTATAAACCA TCTAGGTTTC
1381 TCAAAGAAGG TGTACCAGAT TTAAAGGAG GTAATTGTTGA GTTGTACCA TTTGGTCGG
1441 GTCCGCCGTC TTGCCCGGT ATGCAACTTG GGCTTATGC ATTGGAATIG GCTGTGGCC
1501 ATCTTCTCA TTGTTTACT TGGGAATTGCA CAGATGGTAT GAAACCAAGT GAGCTTAAAAA
1561 TTGATGATAT TTTGGACTC ACTGCTCCAA GAGCTAATCG ACTCGTGGCT GTGCCTACTC
1621 CACGCTGTGTT GTGCCCCCTT TATTAATTGAA AGAAAAAAGG TGGGGCT

SEQ. ID. NO. 188

1 MKEMVQNNMS TSLLETLQAT PMIFYFIVPL FCLFLLSKSR RKRLPPGPYG WPLIGNNNMM
61 DQLTHRGLAK LAQKYGGVFH LKMGYVHKIV VSGPDEARQV LQEHDIIIFSN RPATVAISYL
121 TYDRADMAFA DYGLFWRQMR KLCVMKLF SR KRAESWDSVR DEADSMVRIV TTNTGTAVNL
181 GELVFSLTRN IIYRAAFGTC SEDGQGEFIE IMQEFSKLFG AFNIADFIPW LGWVGKQSLN
241 IRLAKARASL DGFIDSIIIDD HIRKKAYVN GKNDGGDRET DMVDELLAFY SEEAKVTESE
301 DLQNAIRLT KDSIKAIIMDV MFGGTETVAS AIEWAMAELM RSPEDLKVKQ QGLANVVGLN
361 RKVEESDFEK LTYLRCCCLKE TLR LHPPIPL LLHETAEEEST VSGYHIPAKS HVIINSFAIG
421 RDKNSWEDPE TYKPSRFLKE GVPDFKGGNF EFIPFGSGR SCPGMQLGLY ALEMAVAHLL
481 HCFTWELPDG MKPSELKMD IFGLTAPRAN RLVAVPTPRL LCPLY

FIG. 95

NAME D135-AE1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 189

1 GGGGGATAAG AATATGGAGA TACCATATTA CAGCTTAAAAA CTTACAATT TTTCAATTG
61 AATTATCTTT GTACTAACAGAT GGGCATGGAA AATCTTGAAAT TATGTGTGGT TAAAACCAAA
121 AGAATTGGAG AAATGCATCA GACAGCAGGG TTTCAAAGGA AACTCTTACA AATTCTTGT
181 TGGGGATATG AAAGAGATAA AGAAAATGGG TGAAGAAGCT ATGTCTAACG CAATCAATT
241 CTCTCATGAC ATGATTGGC CTAGAGTCAT CCCCTTCATC CACAAAACCA TCACCAATT
301 TGGTAAGAAT TGTGTGTGT GGTTTGGGCC AAGACCAGCA GTCTGTATCA CAGACCCGGA
361 ACTTGTAAAG GAGGTCTAA CGAAGAATT CGTTTATCG AAGCCACCTG GCACCTCACT
421 CACAAAATTG GCAGCAACTG GAATTGCAGG CTATGAAACA GATAAAATGGG CTACACATAG
481 AAGGCTTCTC AATCTGCTT TTACCTGTA CAAGTTGAAG CATATGCTAC CTGCATTCCA
541 ATTTACTGCT TGTGAGATGT TGACCAAATT GGAGAAAGTG GTCTCACCAA ATGAAACAGA
601 GATAGATGTG TGGCCATATC TACAAACTT AACAAGTGT GCCATTTCAA GAACCTGCTT
661 TGGCAGTAGT TATGAAGAG GAAGAAAGCTT TTTTGAACCTT CAAAAGGAAC AACTTCACT
721 AATTCTAGAA GTGTCGGCA CAATATACAT CCCAGGATGG AGGTTTTGC CAACAAAAG
781 GAACAAAAGG ATGAAGCAA TATTTAATGA AGTACGAGCG CTGGTATTGG GAATTATTAA
841 GAAAAGATTG AGTATGATTG AAAATGGAGA AGCTCCATGAT GATTTATTGG GTATATTATT
901 GGCATCCAT TTAAAAGAAA TCCACAAACA TGGAATAAAC AGAAAATTG GTATGAGTAT
961 TGATGAGGTG ATTGAAGAGT GTAAACCTT CTATTTTGC GGGCAAGAGA CAACCTTCATC
1021 TTACTTGTG TGGACTATGA TTTTGTGTG CAAACATCCT AGTTGGCAAG ATAAACCTG
1081 AGAAGAGGTT TTGCAAGTGT TTGGAAGTAG GGAAGTTGAC TATGACAAGT TGAATCAGCT
1141 AAAATATGTA ACTATGATCT TAAACGGAGT CTTAAGGGT TATCCAGCAG GATATGGCAT
1201 TAATCGAATG GTAAACAAAG AAAACAAAGTT AGGAAATTAA TGTTTACCAAG CTGGGGTACA
1261 ACTCTTGTCA CCAACAAATT TGTGCAACA TGATACGTAA ATATGGGGAG ATGATGCAAT
1321 GGAGTTCAT CCAGAGAGAT TTAGTGTGG AATATCCAA GCAACAAAAG GAAAACCTGT
1381 GTTCTTCTCA TTTAGTTGGG GTCCAAGAAT ATGTATTGGG CAAAATTG CTATGTTAGA
1441 GGCCAAGATG GCAATGGCTA TGATCTGAA AAACTATGCA TTTGAACICT CTCCATCTTA
1501 TGCTCATGCT CCTCATCCAC TACTACTTCA ACCTCAATAT GGTGCTCAAT TAATTGTGTA
1561 CAAGTTGTAG AAATGGTCAA TTTGGAACCTT GTTATGGAAC TTTTATCATC GTAATCAACC

SEQ. ID. NO. 190

1 MEIPYYSLKL TIFSFIAIFIW LRRAWKILNY VWLKPKELEK CIRQQGFKGN SYKFLFGDMK
61 EIKKMGEEM SKPINFSHDM IWPVRMPFIH KITINYGKNC FWVFGPRPAV LITDPELVKE
121 VLTKNFVYQK PPGTPLTKLA ATGIAGYETD KWATHRRLLN PAFHLDKLKH MLPAFQFTAC
181 EMLSKLEKVV SPNGTEIDVW PYLQLTLSDA ISRTAFGSSY EERKRKFELQ KEQLSLLIEV
241 SRTIYIPGWR FLPTKRNKRM KQIFNEVRAL VLGIKKRLS MIENGEAPDD LLGILLASNL
301 KEIQQHGNKK KFGMSIDEVI EECKLFYFAG QETTSSLLVW TMILLCKHPS WQDKAREEV
361 QVFGSREVDY DKLNQLKIVT MILNEVRLY PAGYAINRMV TKETKLGMLC LPAGVQLLLP
421 TILLQHDTEI WGDDAMEFNP ERFSDGISKA TKGKLVFFPF SWGPRICIGQ NFAMLEAKMA
481 MAMILKNYAF ELSPSYAHAP HPILLQPQYQ AQLILYKL

FIG. 96

NAME D141-AD7
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 191

1 GTCCTAACTA AAAATGGAGA TTCAAGTTTC TAACCTAGTT GCATTCTTGC TCTTTCTCTC
61 CAGCATCTT CTTCTATTCA AAAATGGAA AACCAGAAAA CTAATTTGC CTCTGGTCC
121 ATGGAATTAA CCTTTTATTG GAAGTTTACA CCATTTGGCT GTGGCAGGTC CACTTCTCA
181 CCATGGCCTA AAAAATTAG CCAAACGCTA TGGTCCTCTT ATGCATTAC AACTTGACA
241 AATTCCCTACA CTCATCATAT CATCACCTCA AATGGAAAAA GAAGTACTAA AAACCTCACGA
301 CCTCGCTTT GCCACTAGAC CAAAGCTGT CGTGGCCGAC ATCATTCACT ACGACAGCAC
361 GGACATAGCA TTTCTCCGT ACAGGTGAATA CTGGAGACAA ATTCTGAAA TTGCAATT
421 GGAACCTCTG AGTCCAAGA TGTCAAATT TTTAGCTCG ATTGCGCAAG ATGAGCTCTC
481 GAAGATGCTC TCATCTATAC GAACGACACC CAATCTTACA GTCAATCTTA CTGACAAAAT
541 TTTTGTTTACGAGTTCCGG TAACCTGTAG ATCAGCTTTA GGGAGATAT GTGAGGACCA
601 AGACAAATTG ATCATTTTA TGAGGGAAAT ATATCATTTG GCAGGTGGAT TTAGTATTGC
661 TGATTTTTC CCTACATGGA AAATGATTCA TGATATTGAT GGTTCGAAT CTAACCTGGT
721 GAAAGCACAT CGTAAGATTG ATGAAATTTC GGGAAATGTT GTTGATGAGC AAAAAAGAA
781 CAGAGCAGAT GGCAAGAAGG GTAATGGTGA ATTTGGTGT GAAGATTGA TTGATGTATT
841 GTTAAGAGTT AGAGAAAATG GAGAAAGTCA AATTCCATTC ACAAAATGACA ATATCAAATC
901 AATATTAATC GACATTTCT CTGGGGATC TGAAACATCA TCGACGACTA TAATTTGGC
961 ATTAGCTGAA ATGATGAGA AACCAAGTGT TTAGCAAG GCACAAAGCTG AAGTAAGGCA
1021 AGCTTGAAG GAGAAAAAG GTTTCAACA GATTGATCTT GATGAGCTAA AATATCTCAA
1081 GTTAGTAATC AAAGAACCT TAAGAATGCA CCCTCCAATT CCTCTTATTAG TTCTTAGAGA
1141 ATGTATGGAG GATACAAAGA TTGATGGTTA CAATATACTT TTCAAAACAA GACTCATAGT
1201 TAATGCAATG GCAATCGGAC GAGATCCAGA AAGTTGGGAT GACCCCGAA GCTTTATGCC
1261 AGAGAGATTG GAGAATAGTT CTATTGACTT TCTTGGAAAT CATCATCAGT TTATACCAATT
1321 TGGTGCAGGA AGAAGGATTG GTCTGGGAAT GCTATTGTT TTAGCTAATG TTGGACAAAC
1381 TTTAGCTCAG TTACTTTATC ACTTCGATTG GAAACTCCCT AATGGACAAA GTCATGAGAA
1441 TTTCGACATG ACTGAGTCAC CTGGAATTTC TGCTACAAGA AAGGATGATC TTGTTTGAT
1501 TGCCACTCCT TATGATTCTT ATTAAGCAGT AGCAGAAAATA AAAAGCCGGG GCAAACAGAA
1561 AAAAGT

SEQ. ID. NO. 192

1 MEIQFSNLVA FLLFLSSIFL LFKKWKTRKL NLPPGPWKL P FIGSLHHILAV AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKKFSSI RQDELSKMLS SIRTPNLTW NLTDKFWFT
181 SSVTCRSLALG KICGDQDKLI IFMRRIISLA GGFSIADFFF TWKMIHDIDG SKSKLVKVAHR
241 KIDEILGNVV DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNIKSILID
301 MFSAGSETSS TTIIWALAEK MKKPSVLAKA QAEVRQALKE KKGFQQIDLD ELKYLKLVK
361 ETLRMHPPIP LLVPRECMED TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE
421 NSSIDFLGNH HQFIPFGAGR RICPGMLFGL ANVGQPLAQL LYHFDWKLPN GQSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

FIG. 97

NAME D147-AD3
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 193

1 CAACTAACAA ACACATTGAG TCCTCTCCCA AATCACTGAT TCACCACCAA AAGTACCAAC
61 AATTCAATGG AAGGTACAAA CTTGACTACA TATGCAGCAG TATTTCTTGA TACTCTGTTT
121 CTTTTGTTCCTTCCCAACT TCTTCGCCAG AGGAAACTCA ATTACCTCC AGGCCCCAAA
181 CCATGGCGA TCATCGGAAA CTAAACCTT ATTGGCAATC TTCTCATCG CTCAATCCAC
241 GAACTCTCCC TCAAGTACGG ACCCGTTATG CAACTCCAAT TCGGGTCTTT CCCCGTTGTA
301 GTTGGATCCT CGCTGAAAT GGCTAAGATT TTCTCTAAAT CCATGGATAT TAACTTTGTA
361 GGCAGGGCTTA AAACGGCTG CGGAAAATAC ACAACGTACA ATTATTCCGA TATTACATGG
421 TCTCCTTAGC GACCATATTG GCGCCAGGG CTTAGGATGT GCCTAACCGGA ATTATTCCGC
481 ACGAAACGTC TCGATTCTATA CGAGTATATT CGGGCTGAGG AGTTGCAATT TCTTCTCCAT
541 AATTGAAACA AAATATCAGG GAAACCAATT GTTGTGAAAG ATTATTGAC GACGTTGAGT
601 TAAATGTTA TTAGCAGGAT GTTACTGGGG AAAAGGTATT TGACCGAAC TGGACGATC CGAGAACCTG
661 TTCGTGAATC CTGAGGAATT TAAGAAGATG TTGACGGAAT TGTGTTTGCT AAATGGTGA
721 CTTAATATTG GAGATTCAAT TCCATGGATT GATTTCATGG ATTTGCAAGG TTATGTTAAG
781 AGGATGAAAG TAGTGAGCAA GAAATTGAC AGTTTTTAG AGCATTTAT TGATGAGCAT
841 AACATTAGGA GAAATGGAGT GGAAAGATTAT GTTCTAAGG ATATGGTGA TGTTTTGTTG
901 CAGCTCGCTG ATGATCCGA GTTGGAAAGT AGCTGGAGA GACATGGAGT CAAAGCATT
961 ACTCAGGATA TGCTGGCTGG TGGAACCGAG AGTTCAAGCAG TGACAGTGGG GTGGGCAATT
1021 TCAGAGCTGC TAAAGAAGCC GGAGATTTTC AAAAAGGCTA CAGAAGAATT GGATCGAGTA
1081 ATTGGCCAGA ATAGATGGGT ACAAGAAAAG GACATTCCAA ATCTTCCTTA CATAGAGGCC
1141 ATAGTCAAAG AGACTATGCC ACTGCACCCCC GTGGCACCAA TGTTGGTGCC ACGTGAGTGT
1201 CGAGAAAGATA TTAAGGTAGC AGGTACGAC TTTCAGAAAG GAACTAGGGT TCTCGTGAGT
1261 GTATGGACTA TTGGAAAGAGA CCCTACATTG TGGGACGAGC CTGAGGTGTT CAAGCGGAG
1321 AGATTCCTATG AAAAGTCCAT AGATGTTAAA GGACATGATT ATGAGCTTTT GCCATTGG
1381 CGGGGGAGAA GAATGTGCC GGGTTATAGC TTGGGGCTCA AGGTGATTCA AGCTAGCTTA
1441 GCTAATCTTC TACATGGATT TAACTGGTCA TGCCCTGATA ATATGACTCC TGAGGACCTC
1501 AACATGGATG AGATTTTGG GCTCTCTACA CCTAAAAAT TTCCACTTGC TACTGTGATT
1561 GAGCCAAGAC TTTCACCAAA ACCTTACTCT GTTTGATTCA GCAGTTCTAT GGTTCCGTCA
1621 AGATAGACTT TGTACGTTT GAACCTGTGC TC

SEQ. ID. NO. 194

1 MEGTNLITTYA AVFLDTLFLL FLSKLLRORK LNLPGPKPW PIIGNLNIG NLPHRSIHEL
61 SLKYGPVQL QFGSFPVVVG SSVEMAKIFL KSMIDINFVGR PKTAAGKYTT YNYSDTIWSP
121 YGPYWRQARR MCLTELFSTK RLDSYEYIRA EELHSLLHNL NKISGKPIVL KDYSTTLSN
181 VISRMVLGKR YLDESENFSV NPEEFKKMLD ELFLLNGVLM IGDSIPWIDF MDLQGYVKRM
241 KVVSKKFDKF LEHVIDEHN RRNQVENYVA KDMVDVLLQL ADDPKLEVKL ERHGVKAFTQ
301 DMLAGGTESS AVTVEWAISE LLKKPEIFKK ATEELDRVIQ QNRWVQEKDI PNLYIEAIV
361 KETMRLHPVA PMLVPRECRE DIKVAGYDVQ KGTRVLVSVW TIGRDPTLWD EPEVFKPERF
421 HERSIDVKGH DYELLPFGAG RRMCPGYSLG LKVIQASLAN LLHGFNWSLP DNMTPEDLNM
481 DEIFGLSTPK KFPLATVIEP RLSPKLYSV

FIG. 98

NAME D163-AF12
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 195

1 CTTCTTCCTT CCTAACTAAA AATGGAGATT CAGTTTCTA ACTTAGITGC ATTCTGCTC
61 TTTCTCTCCA GCATCTTCT TGATTCAA AAATGGAAAA CCAGAAAACT AAATTGCGCT
121 CCGGTCCAT GGAATTACC TTTATTGGA AGTTTACACC ATTTGGCTGT GGCAGGTCCA
181 CTTCCTCACCA ATGGCTAAA AAATTTAGCC AAACGCTATG GTCCCTTTAT GCATTTACAA
241 CTTGGACAAA TTCCTACACT CGTCATATCA TCACCTCAA TGCCAAAAGA AGTACTAAAA
301 ACTCAGCACC TCGCTTTGC CACTAGACCA AAGCTTGTCG TGGCCGACAT CATTCACTAC
361 GACAGCACGG ACATAGCATT TTCGCCATAC GGTGAATACT GGAGACAAAT TCGTAAAATT
421 TGCATATTGG AACTCTTGG TGCCAAAGATG GTCAAGTTT TAGCTCGAT TCGCCAAGAT
481 GAGCTCTCGA AGATGGTTTC ATCTATACGA ACGACGCCA ATCTTCCAGT CAATCTTAC
541 GACAAGATT TTTGGTTAC GAGTTCGGTG ATTGTAGAT CAGCTTTAGG GAAGATATGT
601 GTTGACCAAG ACAAAATTGAT CATTTTATG AGGAAATAAA TATCATTGGC AGGTGGATT
661 AGTATTGCTG ATTTTTCCC TACATGGAAA ATGATTCTG ATATTGATGG TTCAAAATCT
721 AAACTGGTGA AGGCACATCG TAAGATTGAT GAAATTGTTGG AAAATGTGGT AAATGAGCAC
781 AACAGAACATC GAGCAGATGG TAAAAAGGGT AATGGTGAAT TTGGTGGAGA AGATCTGATT
841 GATGTTTGT TAAGAGTTAG AGAAAGTGGG AAGGTCAAAT TTCCAATCAC AGATGACAAT
901 ATCAAATCAA TATTAATCGA CATTTCTC GCGGGATCGG AAACATCATC GACAACATA
961 ATTTGGGCAT TAGCTGAAAT GATGAGAAA CCAAGTGTG TAGCAAAGGC ACAAGCTGAA
1021 GTGAGGCAAG CTTTGAAGGG GAAGAAAATT AGTTTCAAG AGATTGATAT TGATAAGCTA
1081 AAGTATTGAG AGTTAGTGTG CAAAGAAAATC TTAAGAATGC ACCCTCCAAAT TCCTCTGTTA
1141 GTCCCTAGAG AATGATGGA AGATACAAAG ATTGTATGGTT ACAATATACC TTTCAAAACA
1201 AGACTCATTTG TTAATGCATG GGCAATTGGG CGAGATCTC AAAGTTGGGA TGATCTGAA
1261 AGCTTACGC CAGAGAGATT TGAGAATAAT TCTATTGATT TTCTTGGAAA TCATCATCAA
1321 TTATTCAT TTGGTGCAGG AAGAAGGATT TGCTCTGGAA TGCTATTGG TTTAGCTAAT
1381 GTTGGACAAAC CTTAGCTCA GTTACTTTAT CACTTCGATT GGAAACTCCC TAATGGACAA
1441 AGTCATGAGA ATTCGACAT GACTGAGTCA CCTGGAAATT CTGCTACAG AAAGGATGAT
1501 CTTGTTTGA TTGCACTCC TTATGATTCT TATTAAGCAG TAGCAGAAAT AAAAGCCGG
1561 GGCAACAGA AAAAGTATT GCTGCTTCTA GGTATTTCCT ATTGGATAAA TTCAAAATT
1621 CATCCACAAT ATTTAGTGTG TGCTAGAGTT GGTAGC

SEQ. ID. NO. 196

1 MEIQFSNLVA FLLFLSSIFL VFKKWKTRKL NLPPGPWKLPI FIGSLHHlav AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL VISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKVMV SIRTPNLPV NLTDKIWFET
181 SSVICRSALG KICGDQDKLI IFMREIISLA GGFISIADFFF TWKMIHDIDG SKSKLVKAHR
241 KIDEILENNVV NEHKQNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT DDNIKSILID
301 MFSAGSETSS TTIIWALAEV MKKPSVLAKA QAEVROALKG KKISFQEIDI DKLKYLKLV
361 KETLRMHPPI PLLVPRECME DTKIDGYNIP FKTRVIVNAW AIGRDPQSWD DPESFTPERF
421 ENNSIDFLGN HHQFIPFGAG RRICPGMLFG LANVGQPLAQ LLYHFDWKLP NGQSHENFDM
481 TESPGISATR KDDLVLIATP YDSY

FIG. 99

NAME D163-AG11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 197

1 CTTCTTCCTT CCTAATAAA AATGGAGATT CAGTTTTCTA ACTTAGTTGC ATCTTGCTC
61 TTTCTCTCCA GCATCTTCT TGTTTCAAA AAATGGAAAAA CCAGAAAACT AAATTTGCT
121 CCTGGTCCAT GGAAATTACC TTTTATTGGA AGTTTACACC ATTTGGCTGT GGCAGGTCCA
181 CTTCCCTCACC ATGGCTAAA AAAATTAGCC AAACGCTATG GTCCCTTAT GCATTACAA
241 CTTGGACAAA TTCCTACACT CGTCATATCA TCACCTCAAA TGGCAAAGA AGTACTAAA
301 ACTCACGACC TCGCTTTGC CACTAGACCA AAGCTTGTG TGGCCGACAT CATTCACTAC
361 GACAGCACGG ACATAGCACT TTGCCCATAC GGTGAATACT GGAGACAAT TCGTAAAATT
421 TGCATATTGG AACTCTTGAG TGCCAAAGATG GTCAAGTTTT TTAGCTCGAT TCGCCAAAGAT
481 GAGCTCTCGA AGATGGTTTC ATCTATACGA ACGACGCCA ATCTCCAGT CAATCTTAC
541 GACAAGATTT TTTGGTTAC GAGTCGGTA ATTGTAGAT CAGCTTCTAGG GAAGATATGT
601 GGTGACCAAG ACAAAATTGAT CATTTTATG AGGGAAATAA TATCATTGGC AGGTGGATT
661 AGTATTGCTG ATTTTTCCC TACATGGAAA ATGATTCTATG ATATTGATGG TTCAAAATCT
721 AACTGGTGA AGGCACATCG TAAGATTGAT GAAATTGTTGG AAAATGTGGT AAATGAGCAC
781 AACAGAACATC GAGCAGATGG TAAAGGGT AATGGTGAAT TTGGTGGAGA AGATCTGATT
841 GATGTTTGT TAAGAGTTAG AGAAAAGTGGA GAAGTTCAAA TTCCAATCAC AGATGACAAT
901 ATCAAATCAA TATTAATCGA CATGTTCTCT CCCGGATCGG AAACATCATC GACAACATATA
961 ATTTGGGCAT TAGCTGAAAT GATGAAAGAAA CCAAGTGTGTT TAGCAAAGGC ACAAGCTGAA
1021 GTGAGCCAAAG CTTTGAAAGGG GAAGAAAATT AGTTTCAAG AGATTGATAT TGATAAGCTA
1081 AAGTATTGAG AGTTAGTGT CAAAGAAAATC TTAAGAAATGC ACCCTCCAAT TCCCTGTAA
1141 GTCCCTAGAG AATGTATGGG AGATACAAAG ATTGATGGTT ACAATATACC TTTCAAAACA
1201 AGACTCATTG TTAATGCATG GGCAATTGGG CGAGATCCTC AAAGTTGGG TGATCTGAA
1261 AGCTTACGC CAGAGAGATG TGAGAATAAT TCTATTGATT TTCTTGGAAA TCATCATCAA
1321 TTATTCCAT TTGGTGCAGG AAGAAGGATT TGTCCTGGAA TGCTATTGG TTTAGCTAAT
1381 GTTGACACAC CTTTAGCTA GTTACTTTAT CACTTCGATT GGAAACTCCC TAATGGACAA
1441 ACTCACCAAA ATTCGACAT GACTGAGTC CCTGGAATT TGCTACAAG AAAGGATGAT
1501 CTTATTGAG TTGCACTCC TGCTCATTCT TGATTAAGTA TTGCTGTTT TCTATTGGG
1561 AATTTCAAA ATTCACTCAC AATATATAGT GTTGCTAGA GTTGGTTAGC

SEQ. ID. NO. 198

1 MEIQFSNLVA FLLFLSSIFL VFKKWKTRKL NLPPGPWKL P FIGSLHHlav AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL VISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYSTDIAL
121 SPYGEYWRQI RKICILELLS AKMVKKFSSI RQDELSKMVS SIRTPNLPV NLTDKIFWFT
181 SSVICRSALG KICGDQDKLI IFMREIISLA GGFISIADFFF TWKMIHDIDG SKSKLVKAHR
241 KIDEILENNV NEHKQNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT DDNIKSILID
301 MFSAGSETSS TTIIWALAEK MKKPSVLAKA QAEVSQALKG KKISFQEIDI DKLKYKLVI
361 KETLRMHPI PLLVPRECME DTKIDGYNIP FKTRVIVNAW AIGRDPQSWD DPESFTPERF
421 ENNSIDFLGN HHQFIPFGAG RRICPGMLFG LANVGQPLAQ LLYHFDWKLP NGQTHQNFDM
481 TESPGISATR KDDLILIATP AHS

FIG. 100

NAME D163-AG12
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 199

1 ATCCTTCCTTC CTTCCCTAGGT CCTAACTAAA AATGGAGATT CAGTTTCTA ACTTAGTTGC
61 ATTCTTGCTC TTTCTCTCCA GCATCTTCT TCTATTCAA AAATGAAAAA CCAGAAAACT
121 AAATTTGCCCT CCTGGTCCAT GGAATTACCA TTTTATTGGA AGTTTACACC ATTTGGCTGT
181 GGCAGGTCCA CTTCTCACC ATGGCCTAAA AAATTTAGCC AAACGCTATG GTCCTCTTAT
241 GCATTTACAA CTTGACAAA TTCTCTACACT CATCATATCA TCACCTCAA TGCGAAAAGA
301 AGTACTAAAA ACTCACGACC TCCTTGTG CACTAGACCA AAGCTTGTCC TGGCCGACAT
361 CATTCACTAC GACAGCACGG ACATAGCATT TTCTCCGTAC GGTGAATACT GGAGACAAAT
421 TCGTAAATT TGCAATTGG AACTCTTGAG TGCAAGATG CTCAAATT TTAGCTCGAT
481 TCGCCAAGAT GAGCTCTCGA AGATGCTCTC ATCTATACGA ACGACACCCA ATCTTACAGT
541 CAATCTACT GACAAAATT TTGGTTAAC GAGTTCGGTA ACTTGTAGAT CAGCTTTAGG
601 GAAGATATGT GGTGACCAAG ACAAAATTGAT CATTTTATG AGGGAAAATAA TATCATTGGC
661 AGGTGGATT AGTATTGCTG ATTTTTTCCC TACATGGAAA ATGATTCTG ATATTGATGG
721 TTCGAAATCT AACTGGTGA AAGCACATCG TAAGATTGAT GAAATTGTTG GAAATGTTGT
781 TGATGAGCAC AAAAGAACAG GAGCAGATGG CAAGAAGGGT AATGGTGAAT TTGGTGGTGA
841 AGATTGATT GATGATTGT TAAGAGTTAG AGAAAGTGGA GAAGTTCAA TTCTATCAC
901 AAAATGACAAT ATCAAATCAA TATTAATCGA CATGTTCTC CGGGGATCTG AAACATCATC
961 GACCACTATA ATTTGGCATTAGCTGAAT GATGAAGAAA CCAAGTGTGTT TAGCAAAGGC
1021 ACAAGCTGAA GTAAGGCAAG CTTGAGGGA GAAAAAAAGGT TTTCAACAGA TTGATCTTGA
1081 TGAGCTAAA TATCTCAAGT TAGTAATCAA AGAACCTTA AGAATGCACC CTCCAATTCC
1141 TCTATTAGTT CCTAGAGAA GTATGGAGGA TACAAAAGATT GATGGTTACA ATATACCTTT
1201 CAAAACAAGA GTCATAGTTA ATGGCATGGGC AATCGGACGA GATCCAGAAA GTTGGGATGTA
1261 CCCCCAAAGC TTTATGCCAG AGAGATTGTA GAATGTTCT ATTGACTTTC TTGGAATCA
1321 TCATCAGTTT ATACCATTG GTGCAGGAAG AAGGATTGTC CCGGGATGCT TATTTGGTTT
1381 AGCTAATGTT GGACAACCTT TAGCTCAGTT ACTTTATCAC TTGATTGGA AACTCCCTAA
1441 TGGACAAGT CATGAGAATT TCGACATGAC TGACTCACCT GGAATTCTG CTACAAGAAA
1501 GGATGATCTT GTTTGATTG CCACTCTTA TGATTCTTAT TAAGCAGTAG CAGAAATAAAA
1561 AAGCCGGGGC AAACAGAAA AAGTATTGCT GCTCTAGGT ATTTCTTATT GGATAAAATT
1621 CAAAATCTAT CCACAAATT TAGTGTGTTGC TAGAGTTGGT TAGC

SEQ. ID. NO. 200

1 MEIQFSNLVA FLLFLSSIFL LFKKWKTRKL NLPPGPWKLPI F1GSLHHlav AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL IISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAF
121 SPYGEYWRQI RKICILELLS AKMVKFFSSI RQDELSKMLS SIRTPNLTV NLTDK1FWFT
181 SSVTCRSALG KICGDQDKLI IFMREIIISLA GGF1IADFFF TWKMIHDIDG SKSKLVKAHR
241 KIDEILGNVV DEHKKNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT NDNIKSILID
301 MFSAGSETSS TTIIWALAEM MKKPSVLAKA QAEVRQALKE KKGFQQ1Q1LD ELKYLKLVIK
361 ETLRMHPPIP LLVPRECMD TKIDGYNIPF KTRVIVNAWA IGRDPESWDD PESFMPERFE
421 NSSIDFLGNH HQF1PFGAGR RICPGMLFGL ANVGQPLAQ1 LYHFDWKLPN GQSHENFDMT
481 ESPGISATRK DDLVLIATPY DSY

FIG. 101

NAME D205-BG9
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 201

1 TTCTTATTT GATTCACCA TGGAGAACCA ATACTCCTAC TCATTCTCTT CCTACTTCTA
61 CTTAGCTATA GTACTGTTTC TTCTTCCAAT TTGGTCAAA TATTTCTTCC ATCGGAGAAG
121 AAATTTACCT CCAAGTCCAT TTCTCTTCC AATAATTGGT CACCTTTACC TTCTCAAGAA
181 AACTCTCCAT CTCACTCTAA CATCCTTATC AGCTAAATAT GGCTCTGTT TATACCTAA
241 ATTGGGCCTCT ATGCCGTGA TTGGTGTGTC CTCACCATCT GCTGTTGAAG AATGTTAAC
301 CAAGAATGAT ATCATATTGCAAATAGGCCAAGACCGTG GCTGGTGACA AGTTTACCTA
361 CAATTATACT GTTATGTTT GGGCACCCCTA TGCCCAACTT TGGAGAATT TTCGCCGATT
421 AACTGTCGTT GAACTCTCTT CTTCACATAG CCTACAGAAA ACTTCTATCC TTAGAGATCA
481 AGAAAGTTGCA ATATTATTCG TTGCGTTATA CAAATTCTCA AAGGATAGTA GCAAAAAAGT
541 CGATTGACCA AACTGGCTT TTACTTTGGT TTCAATCTT ATGACCAAAA TTATTGCTGG
601 GAGACATATT GTGAAGGAGG AAGATGCTGG CAAGGAAAGG GCATTGAAA TTATTGAAAAA
661 ACTTAGAGGG ACTTCTCTTAG TAATACATC ATCTCTGAAT ATGTTGATT TCTTGCAGT
721 ATTCAAGGTGG GTTGGTTACA AAGGGCTGGA GAAGAAGATG GCCTCAATT ACAATAGAAG
781 AAATGAATTC TTGAACAGCT TGCGTGTGAA ATTCGACAC AAGAAAAGTA GTGCTTCACA
841 ATCTAACACA ACTGGTGGAA ACATGGGAGA GAAAACACCA CTGATTGAAA AGCTCTGTC
901 TCTTCAGGAA TCAGAGCTG AATTCTACAC TGATGATATC ATCAAAAGTA TTATGCTGGT
961 AGTTTTGTTG CGAGGAACAG AGACCTCATC AACACCATC CAATGGTAA TGAGGCTCT
1021 TGAGCTTCAC CCTGAGGAT TGATAAGCT ACGAGCTGAC ATTGACAGTA AAGTTGGAA
1081 TAAGCGCTTG CTGAATGAAT CAGACCTCAA CAAGCTTCG TATTGCAATT GTGTTGTTAA
1141 TGAGACAATG AGATTATACA CTCCGATACC ACTTTTATTG CCTCATTATT CAACTAAAGA
1201 TTGTATGTTG GAAGGATAATG ATGACCAAA ACATACATG TTGTTGTCACGCTTGGC
1261 CATTCAACAGG GATCCAAAGG TATGGGAGGA GCCTGACAAAG TTCAAGCCAG AGAGATTG
1321 GGCAACAGAA GGGGAAACAG AAAGGTTCAA TTACAAGCTT GTACCAATTG GAATGGGGAG
1381 AAGAGCGTGC CCTGGAGCTG ATATGGGGTT GCGAGCAGTT TCTTTGGCAT TAGGTGACT
1441 TATTCAATGC TTGACTGGC AAATTGAGGA AGCGGAAAGC TTGGAGAAA GCTATAATT
1501 TAGAATGACT ATGCCAGAACAGCCCTTGAA GTTGTCTGC ACTCCACGCG AAGATCTTGG
1561 CCAGCTCTA TCCCCACTCT AAGGCAATT ATCAATGCCAACGTAATCT TCATCTACCA
1621 CTATG

SEQ. ID. NO. 202

1 MENQYSYSFS SYFYLAIVLF LLPILVKYFF HRRRNLPSP FSLPIIGHLY LLKKTLHLTL
61 TSLSAKYGPV LYKLGSMPV IVVSSPSAVE ECLTKNDIIF ANRPKTVAGD KFTYNYTVYV
121 WAPYQQLWRI LRRITVVELF SSHSLQKTSI LRDQEVAIFI RSLYKFSKDS SKKVDLTNWS
181 FTLUVNLMTK IIAGRHVKE EDAGKEKGIE IIEKLRGTFV VTTSFNMCD FLPVFRWVG
241 KGLEKKMASI HNRNEFLNS LLDEFRHKK SASQSNTTVG NMEKTTLIE KLLSLQESEP
301 EFYTDIINKS IMLVVFVAGT ETSSTTIQWV MRLLVAHPEA LYKLRADIDS KVGNKRLLNE
361 SDLNKLPIYLH CVVNETMRLY TPIPLLLPHY STKDCIVEGY DVPKHTMLFV NAWAIHRDPK
421 VWEEDPKFKP ERFATEGET ERFNYKLVPF GMGRRACPGA DMGLRAVSLA LGALIQCFDW
481 QIEEAEESLEE SYNSRMTMQN KPLKVVCTPR EDLGQLLSQL

FIG. 102

NAME D207-AA5
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 203

1 AACCAACCTT CCTTTCTTA CTTAGAAAAA TGGATATTCA GTCTTCTCCT TTCAACTAA
61 TTGCTTGCT ACTCTTCATT TCATTTCTT TTATCCTATT GAAAAGTGG AATACCAAAA
121 TCCCAAAGTT ACCTCCAGGT CCATGGAGAC TTCCCTTAT TGGCAGCCTC CATCACTG
181 AAGGTAACCT CCCACACCAT CATCTTAGAG ATTTAGCCCG AAAATATGGA CCTCTCATGT
241 ATTTACAAC TGGAGAAGTT CCTGTAGTT TAATATCTTC GCCACGTATA GCAAAAGCTG
301 TACTAAAAAC TCATGATCTT GCTTTGCAA CGAGGCCTCG GTTCATGTCC TCGGACATTG
361 TGTTTACAA AAGCAGGGAC ATATCATTG CCCCCATATGG CGATTACTGG AGACAAATGC
421 GTAAAATATT ACAACAGAA CTCTTGAGTA ACAAGATGCT CAAGTCATT AGCACAATCC
481 GAAAGGATGA GCTCTCGAAG CTCCCTCTCGT CGATTCGTT AGCAACAGCT TCTTCTGCAG
541 TGAACATAAA CGAAAAGCTT CTCTGGTTTA CAAGTTCAT GACTTGTAGA TTAGCCTTG
601 GAAAATATG CAACGATCGT GATGAATTGA TTATGTTAAT AAGGGAGATA TTAGCATAT
661 CAGGAGGATT TGATGTTGAT GATTTGTTCC CTTCATGAA ATTACTTCAC AATATGAGCA
721 ACATGAAAGC TAGATTGACG AATTTCAACC ATAAGTATAA TCTAATTATG GAGAATATCA
781 TCAATGAGCA CAAAGAGAAAT CATGCAGCAG GGATAAAAGGG AAATAACGAG TTTGGTGGCG
841 AAGATATGAT TGATGCTTTA CTGAGGGTTA AGGAGATAA TGAGCTTCAA TTTCCATCG
901 AAAATGACAA CATGAAAGCA GTAATTCTGG ACTTGTGTT TGCTGGAAC GAAACTTCAT
961 ATACTGCAAT TATATGGGCA CTATCAGAAAT TGATGAAGCA CCCAAGTGT ATGGCCAAGG
1021 CACAAGCTGA AGTGGAAAAA GTCTTCAAAG AAAATGAAAAA CTTGGACGAA AATGATCTTG
1081 ACAAGTTGCC ATACTAAAAA TCAGTGTCA AAGAAACACT AAGGATGCA CCTCCAGTTC
1141 CTTTATTAGG ACCTAGAGA TGCAAGAAC AAAACTGAGAT TGATGGATAT ACTGTACCTC
1201 TTAAAGCTG AGTAATGGT AATGCACTGGG CAATTGGAA AGATCTGAA AGTTGGGAAG
1261 ATCCGAAAG TTTCAAACCC GAGGGATTGG AAAATATTTC TGTTGATCTT ACGGGAAATC
1321 ATATCAGTT CATCCTCTTC GGTTCAAGGA GAAGAATGTG TCCAGGAATG TCGTTGGTT
1381 TAGTTAACAC TGGGCATCCT TTAGCTCAGT TGCTCTATTCTT CTTTACTGG AAATTCCCTC
1441 ATAAGGTTAA TGCACTGAT TTTCACACTA CTGAAACAAAG TAGAGTTTT GCAGCAAGCA
1501 AAGATGACCT CTACCTGATT CCAAACAAATC ACATGGAGCA AGAGTAGCTC TAAATTGAAT
1561 TCTTGCTTG GAAACATAAA AGAAGAAACT CCAGCTTGGT CTACATTATT TCTTTTGCT
1621 TTATATTAGT ATGGGTGTGT TCAGTTCTT ATTTTTAAGG GTACCCGAA AGATAAAAGGG
1681 CTATATAAAC CAGTGAGACT TTTTATTGGT TGCAAGGTTT TAGATCAAGC CATAAGCAC
1741 CATATTTTAT TCAAAAAAAA AAAAAAAA

SEQ. ID. NO. 204

1 MDIQSSPFNL IALLLFISFL FILLKKWNTK IPKLPPGPWR LPLIGSLHHL KGKLPHHHLR
61 DLARKYGPLM YLQLGEVPVV VISSPRIAKA VLKTHDLAFA TRPRFMSSDI VFYKSRSIDF
121 APYGDYWRQM RKILTQELLS NMLKSFSTI RKDELSKLLS SIRLATASSA VNINEKLLWF
181 TSCMTCRЛАF GKICNDRDEL IMLIREILAL SGGFVCDLF PSWKLLHNMS NMKARLTNVH
241 HKYNLIMENI INEHKENHAA GIKGNNEFGG EDMIDALLRV KENNELQFPI ENDNMKAVIL
301 DLFLAGTETS YTAAIWALSE LMKHPSVMAK AQAEVRKVFK ENENLDENDL DKLPIYLSVI
361 KETLRMHPPV PLLGPRECRE QTEIDGYTVL LKARVMVNAW AIGRDPEWE DPESFKPERF
421 ENISVDLTGN HYQFIPFGSG RRMCPGMSFG LVNTGHFLAQ LLYFFDWKFP HKVNAADFHT
481 TETSRVFAAS KDDLYLIPTN HMEQE

FIG. 103

NAME D207-AB4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 205

1 AACCAACCTT CCTTTCTTA CTTAGTAAAA TGGAATTC A GTCTCTCCT TTCAACTTAA
61 TTGCTTTGCT ACTCTTCATT TCATTTCTTT TTATCCTATT GAAAAAGTGG AATACCAAAA
121 TCCCAAAGTT ACCTCCAGGT CCATGGAGAC TTCCCCTTAT TGGCAGCCTC CATCACTTGA
181 AAGGTAAACT CCCACACCAT CATCTTAGAG ATTTAGCCCC AAAATATGGA CCTCTCATGT
241 ATTACAACT TGGAGAAGTT CCTGTAGTT TAATATCTC GCCACGTATA GCAAAGCTG
301 TACTAAAAC TCATGATCTT GCTTTGCAA CGAGGCCCTCG GTTCATGTCC TCGGACATIG
361 TGTGTTACAA AAGCAGGAC ATATCAATTG CCCCATATGG CGATTACTGG AGACAAATGC
421 GTAAAAATATT AACACAAGAA CTCTTGAGTA ACAAGATGCT CAAGTCATT AGCACAATCC
481 GAAAGGATGG GCTCTGAAG CTCCCTCTCGT CGATTCGTTT AGCAACAGCT TCTTCTGCAG
541 TGAAACATAAA CGAAAAGCTT CTCTGGTTA CAAGTGCAT GACTTGAGA TTAGCCTTTG
601 GAAAAATATG CAACGATCGT GATGAATTGA TTATGTTAAT AAGGGAGATA TTAGCATAT
661 CAGGAGGATT TGATGTTGTT GATTGTTCC CTTCATGGAA ATTACTTCAC AATATGAGCA
721 ACATGAAAGC TAGATTGACG AATGTTCAACC ATAAGTATAA TCTAATTATG GAGAATATCA
781 TCAATGAGCA CAAAAGAAT CATGCAGCAG GGATAAAGGG AAATAACGAG TTTGGTGGCG
841 AAGATATGAT TGATGCTTTA CTGAGGGTTA AGGAGAATAA TGAGCTTCAA TTTCTTATCG
901 AAAATGACAA CATGAAAGCA GTAATTCTGG ACTTTTTTAT TGCTGGAAC TAAACTTCAT
961 ATACTGCAAT TATATGGCA CTATCAGAAT TGATGAAGCA CCCAAGTGTG ATGGCCAAGG
1021 CACAAGCTGA AGTGGAAAAA GTCTTCAGG AAAATGAAAAA CTGGACGAA AATGATCTG
1081 ACAAGTGCC ATACTAAAAA TCAGTGATCA AAGAACACT AAGGATGCAT CCTCCAGTTC
1141 CTTTATTAGG ACCTAGAGAA TGCAAGAGAAC AAACTGAGAT TGATGGATAT ACTGTACCTC
1201 TTAAAGCTAG AGTAATGGT AATGCATGGG CAATTGGAAAG AGATCTGAA AGTTGGGAAAG
1261 ATCCGAAAG TTCAACACCG GAGCGATTG AAAATATTC TGTTGATCTT ACGGGAATTC
1321 ACTATCAGTT CATTCCCTTC GGTTCAAGGA GAAGAATG TGCCAGGAATG TCGTTGGTT
1381 TAGTTAACAC TGGGCATCCT TTAGCTCAGT TGCTCTATT CTTTGACTGG AAATTCCCTC
1441 ATAAGGTTAA TGCAAGCTGAT TTTCACACTA CTGAAACAAAG TAGAGTTTT GCAGCAAGCA
1501 AAGATGACCT CTACTTGATT CCAACAAATC ACATGGAGCA AGAGTAGCTC TAAATTGAAAT
1561 TCTTGCTTGTG GAACGATAAA AGAAGAAACT CCAGCTTGGT CTACATTATT TCTTTTGTCT
1621 TTATATTAGT ATGGGTGTGT TCAGTTCTT GTTTTTAAGG GTACCCGAA AGATAAAGGG
1681 CTATATAAAC CAGTGAGACT TTTTATTGAA AAAAAAAAAA AAAAAAAAAA AAAAAA

SEQ. ID. NO. 206

1 MDIQSSPFNL IALLLFISFL FILKKWNTK IPKLPPGPWR LPLIGSLHHL KGKLPHHHHLR
61 DLARKYGPLM YLQLGEVPVV VISSPRIAKA VLKTHDLAFA TRPRFMSSDI VFYKSRSIDF
121 APYGDYWRQM RKILTOELLS NMKLSFSSTI RKDELSKLLS SIRLATASSA VNINEKLLWF
181 TSCMTCRЛАF GKICNDRDEL IMLIREILAL SGGFDVCDLF PSWKLLHNMS NMKARLTNVH
241 HKYNLIMENI INEHKENHAA GIKGNNEEFG EDMIDALLRV KENNELOQFPI ENDNMKAIVL
301 DLFIACTETS YTAAIWALSE LMKHPSVMAK AQAEVRKVFK ENENLDENDL DKLPYLKSVI
361 KETLRMHPPV PLLGPRECRT OTIEDGYTVL LKARVMVNAW AIGRDPEWE DPESFKPERF
421 ENISVDLTGН HYQFIPFGSG RRMCPGMSFG LVNTGHPLAQ LLYLFDWKFP HKVNAADFHT
481 TETSRVFAAS KDDLYLIPTN HMEQE

FIG. 104

NAME D207-AC4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 207

1 AACCAACCTT CCTTTCTTA CTTAGAAAA TGGATATTCA GTCTTCTCCT TTCAACTTAA
61 TTGCTTGC ACTCTTCATT TCATTTCTTT TTATCCTATT GAAAAGTGG AATACCAAAA
121 TCCCAAAGT ACCTCCAGGT CCATGGAGAC TTCCCTTAT TGGCAGCCTC CATCACTGA
181 AAGGTAAACT CCCACACCAT CATCTTAGAG ATTTAGCCG AAAATATGGA CCTCTCATGT
241 ATTACAACT TGGAGAAGTT CCTGTAGTT TAATATCTTC GCCACGTATA GCAAAAGCTG
301 TACTAAAAC TCATGATCTT GCTTTGCAA CGAGGCTCG GTTCATGTC TCGGACATTG
361 TGTTTACAA AAGCAGGGAC ATATCATTG CCCCCATATGG CGATTACTGG AGACAATGC
421 GTAAAATATT AACACAAAGA CTCTTGAGTA ACAAGATGCT CAAGTCATT AGCACAACTC
481 GAAAGGATGA GCTCTCGAAG CTCCCTCTCGT CGATTCGTT AGCAACAGCT TCTTCTGCCAG
541 TGAACATAAA CGAAAAGCTT CTCTGGTTA CAAGTTGCAAT GACTTGTAGA TTAGCCTTTG
601 GAAAATATC CAACGATCGT GATGAATTGA TTATGTTAAT AAGGGAGATA TTAGCATTAT
661 CAGGAGGATT TGATGTTGTT GATTGTTCC CTTCATGCAA ATTACTTCAC AATATGAGCA
721 ACATGAAAGC TAGATTGACG AATGTTCACC ATAAGTATAA TCTAATTATG GAGAATATCA
781 TCAATGAGCA CAAAGAGAAAT CATGCAGCG GGATAAAAGGG AAATAACGAG TTTGGTGGCG
841 AAGATATGAT TGATGTTTA CTGAGGGTTA AGGAGATAA TGAGCTTCAA TTTCCTATCG
901 AAAATGACAA CATGAAAGCA GTAACTCTGG ACTTGTAT TGCTGAACT GAAACTTCAT
961 ATACTGCAAT TATATGGCA CTATCAGAAAT TGATGAAGCA CCCAAGTGGT ATGGCCAAGG
1021 CACAAGCTGA AGTGAGAAAA GTCTTCAAAG AAAATGAAAA CTTGGACGAA AATGATCTT
1081 ACAAGTGCC ATACTTAAA TCAGTGTATCA AAGAAACACT AAGGATGCAAT CCTCAGTTC
1141 CTTTATTAGG ACCTAGAGA TGCGAGAAC AAACTGAGAT TGATGGATAT ACTGTACCTC
1201 TAAAGCTAG AGTAATGGT AATGCGATGGG CAACTGGAG AGATCTGAA AGTTGGAAAG
1261 ATCCCTGAAAG TTCTAAACCC GAGCGATTG AAAATATTTC TGTTGATCTT ACGGGAAATC
1321 ACTATCAGTT CATTCTTTC GGGTCAGGAA GAAGAATGTG TCCAGGAATG TCGTTGGTT
1381 TAGTTAACAC TGGGCATCCT TTAGCTCAGT TGCTCTATCT CTTTACTGG AAATTCCCTC
1441 ATAAGCTTAA TGCAGCTGT ATTCAACTA CTGAAACAAG TAGAGTTTT GCAGCAAGCA
1501 AAGATGACCT CTACTTGATT CCAACAAATC ACATGGAGCA AGAGTAGCTC TAAATTGAAT
1561 TCTTGCTTG GAACAAATAA AGAAGAAACT CCAGCTTGGT CTACATTATT TCCTTTGCT
1621 TTATATTAGT ATGGGTGTGTCAGTCTCTT GTTTTAAGG GTACCTGAA AGATAAAGGG
1681 CTATATAAAC CAGTGAGACT TTTTATGGT TGCAAGGTTT TAGATCAAGC CATAAGACAG
1741 CATATTTAT TCCACCATTT TCATCATGT TTAATAAAAGT TCCTTCTGTT TATTGTTAGA
1801 AAAAAAAAAA AAAAAAAAAA AAA

SEQ. ID. NO. 208

1 MDIQSSPFNL IALLLFISFL FILLKKWNTK IPKLPPGPWR LPLIGSLHHL KGKLPHHHLR
61 DLARKYGPLM YLQLGEVPVV VISSPRIAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDIF
121 APYGDYWRQM RKILTQELLS NMKMLKSFSTI RKDELSKLLS SIRLATASSA VNINEKLLWF
181 TSCMTCRЛАF GKICNDRDEL IMLIREILAL SGDFVCDLF PSWKLLHNMS NMKARLTNVH
241 HKYNLIMENI INEHKENHAA GIKGNNEFGG EDMIDALLRV KENNELQFFI ENDNMKAVIL
301 DLFIAGTETS YTAIIWALSE LMKHPSVMAK AQAEVRKVFK ENENLDENDL DKLPYLKSVI
361 KETLRMHPPV PLLGPRECRE QTEIDGYTVL LKARVMVNAW AIGRDPEWE DPESFKPERF
421 ENISVDLTGN HYQFIPFGSG RRMCPGMSFG LVNTGHPLAQ LLYLFDWKFP HKVNAADFHT
481 TETSRVFAAS KDDLYLIPTN HMEQE

FIG. 105

NAME D209-AA10
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 209

1 ATATGCAACT GAGATTGAA GAATACCAAC TAACCAAAAAT GCAGTTCTTC AGCCTGGTTT
61 CCATTTCTT ATTTCTATCT TTCCCTTTT TGTTAAGGGT ATGGAAGAAC TCCAATAGCC
121 AAAGCAAAA GTTGCACCCA GTTCCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGGTTGGGG ACTACCACAC CATGCTCTTA GAGATTTAGC CAAAAAAATAT GGACCACTTA
241 TGCACCTTCA ATTAGGTGAA GTTCTGCGG TTGTGGTTAC TTCTCCTGAT ACGGCAAAG
301 AAGTATTAAA AACTCATGAC ATCGCTTTG CGCTCTAGGCC TAGCCTTTG GCCCCGGAGA
361 TTGCTGTTA CAATAGGT GATCTAGCCT TTGCCCCCTA TGGGACTAT TGGAGACAAA
421 TGGCTAAATG ATGTGCTTG GAAGTGTCTCA GTGCCAAGGA TGTCGGAACA TTAGCTCTA
481 TTAGGCGGAA TGAAGTTCTT CGCTCTATTAA ATTTTATCCG GTCACTTCT GGTGAACCTA
541 TTAATGTTAC GGAAAGGATC TTTTGTTC CAAGCTCCAT GACATGTAGA TCAGCGTTG
601 GGCAGGTGTT CAAAGAGCAA GACAAATTAA TACAACATAAT TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGTTGCT GACATATTCC CTTCACTGAA GTTTCTTCAT GTGCTCAGTG
721 GAATGAAGGG TAAGATTATG AATGACACCC ATAAGGTAGA TGCCATTGTT GAGAATGTCA
781 TCAATGAGCA CAAGAAAAAT CTGCAATTG GGAAAACCTAA TGGAGCCTTA GGAGGTGAAG
841 ATTTAATTGA TGTTCTTCTA AGACTTATGA ATGATGGAGG CCTTCATT CCTATCACCA
901 ACGACAAACAT CAAAGCTATA ATTTTGACA TGTTGCTGC CGGGACAGAG ATTCATCGT
961 CAACATTGT GTGGGCTATG GTAGAAATGG TGAAAATTC AGCCGTATTG GCGAAAGCTC
1021 AAGCAGAAGT AAGAGAAGCA TTAGAGGAA AGAAAATTT CGATGAAAAT GATGTTGAGG
1081 AGCTAAACTA CTTAAAGTTA GTAATAAAAG AAACCTCTAAG ACTTCATCCA CCGGTTCCAC
1141 TTTTGGCTCC AAGAGAATGT AGGGAAAGAGA CAAATATAAA CGGCTACACT ATTCTGTAA
1201 AGACCAAAGT CATGGTTAAT GTTTGGCTT TGGAAGAGA TCCAAAATAT TGGATGACG
1261 CAGAAACTTT TATGCCAGAG AGATTGAGC AGTGTCTAA GGATTTGTT GGTAAATAATT
1321 TTGAATATC TCCATTGGT GGCGGAAGGGA GGATTTGTCC TGGGATTTCG TTTGGCTTAG
1381 CTAATGCTTA TTGCCATTG GCTCAATTAC TATATCACTT CGATTGGAAA CTCCCTGCTG
1441 GAATCGAACC AAGGCACTTG GACTTGAUTG AGTTGGTTGG AGTAACCTGCC GCTAGAAAAA
1501 GTGACCTTTA CTTGTTGCG ACTCCTTATC AACCTCTCA AAATGTATT AATGGTTCA
1561 AGTTTTTATT TCCTAGCAA CCCCACTATT GTCTATCTT TCTTTGGTG TTTTGGTTT
1621 TATCTACTCT AATACATGCA TCTTTTACCA TATAGGAATG TACCATGTTG TCG

SEQ. ID. NO. 210

1 MQLRFEYQL TKMQFFSLVS IFLFLSFLFL LRVWKNSNSQ SKKLPPGPWK LPILGSMILHM
61 VGGLEPHVRLR DLAKKYGPLM HQLGEVSAV VVTSPDTAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSSDLAF CPYGDYWROM RKICVLEVLIS AKNVRTFSSI RRNEVLRIN FIRSSSGEPI
181 NVTERIFLFT SSMTCRSAFG QVFKEQDKFI QLIKEVILLE GGFVDADIFP SLKFLHVLSG
241 MKGKIMNAHH KVDAIVENVI NEHKKNLAIG KTNGALGGED LIDVLLRLMN DGLLQFPITN
301 DNKAIIFDM FAAGTETSSS TIWAMVEMV KNPAVFAKAQ AEVREAFRK ETFDENDVEE
361 LNYLKLVKE TLRHPPVPL LLPRECREET NINGTIPVK TKVMVNWL GRDPKYWNDA
421 ETFMPERFEQ CSKDFVGNNF EYLPFGGGRR ICPGISFGLA NAYLPLAQLL YHFDWKLPAG
481 IEPSDDLTE LVGVTAAKS DLYLVATPYQ PPQK

FIG. 106

NAME D209-AA12
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 211
1 ATATGCAACT GAGATTTGAA GAATACCAAC TAACCAAAAAT GCAGTTCTTC AGCTTGGTTT
61 CCATTTCTCCT ATTCTATCT TTCTCTTT TGTTAAGGAT ATGGAAGAAC TCCAAATAGCC
121 AAAGAAAAAA GTTGCCACCA GTTCCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGTTGGTGG ACTACCACAC CATGTCCTTA GAGATTTAGC CAAAAAAATAT GGACCACTTA
241 TGCACCTTCA ATTAGGTGAA GTTCTGCGG TTGTGGTTAC TTCTCCTGAT ACGGCAAAAG
301 AAGTATTAAA AACTCATGAC ATGCTTTTG CGCTAGGCC TAGCCTTTG GCCCGGAGA
361 TTGCTGTTA CAATAGTCT GATCTAGCCT TTTGCCCCTA TGCGACTAT TGGAGACAAA
421 TGCTTAAAT ATGTCCTTG GAAGTGTCA GTGCCAAGAA TGTCGGACA TTAGCTCTA
481 TTAGGGGAA TGAAGTTCTT CGTCTCATTAA ATTTCATCCG GTCTATCTT GGTGAACCTA
541 TTAATGTTAC GGAAGGATC TTGTTGTTCA CAAGCTCCAT GACATGTAGA TCAGCGTTG
601 GGCAGTGTCAAAGGCAA GACAATTAA TACAACATAA TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGTGCT GACATATTCC CTTCACTGAA GTTCTTCAT GTGCTCAGTG
721 GAATGAGGG TAAGATTATG AATGCACACC ATAAGGTAGA TGCCATTGTT GAGAATGTC
781 TCAATGAGCA CAAGAAAAAT CTTGCAATTG GGAAAATCTAA TGAGCGTTA GGAGGTGAAG
841 ATTAAATTGA TGTTCTCTA AGACTTATG ATGATGGAGG CCTTCATTTC CCTATCACCA
901 ACGACAACAT CAAAGCCATA ATTGGACA GTTTGTCG CGGGACAGAG ACTTCATCGT
961 CAACAAATGT GTGGGCTATG GTAGAAATGG TGGAAAATCC AGCCGTATTC GCGAAAGCTC
1021 AAGCAGAAGT AAGAGAAGCA TTAGAGGAA AAGAAACTTT CGATGAAAAT GATGTGGAGG
1081 AGCTAAACTA CCTAAAGTTA GTAATAAAAG AAACCTCTAAG ACTTCATCCA CCGGTTCCAC
1141 TTTTGCTCCC AAAGGAATGT AGGGAAGAGA CAAATAAAAA CGGCTACACT ATTCTGTA
1201 AGACAAAGT CATGGTTAAT GTTGGGCTT TGGAAGAGA TCCAAAATAT TGAATGACG
1261 CAGAACATT TATGCCAGAG AGATTTGAGC AGTGTCTAA GGATTTGTT GTTAATAATT
1321 TTGAATATCT TCCATTGGT GCGGAAGGA GGATTTGTC TGGAATTTCG TTTGGCTTAG
1381 CTAATGCTTA TTGCCCATTG GCTCAATTAC TATATCACTT CGATTGGAAA CTCCCTGCTG
1441 GAATGCCAAC AAGCGACTG GACTTGACTG AGTTGGTTGG AGTAACGCC GCTAGAAAAA
1501 GTGACCTTAA CTGGTTGCG ACTCTTATC AACCTCCTCA AAAGTGATT AATGGTTCA
1561 AGTTTTTATT TCCTAGCAAA CCCCACTATT GTCTATCTT TCTTTGGTG TTTCGGTTT
1621 TATCTACTCT AATACATGCA TCTTTACCA TATAGGAATG TACCATGTTG TCG

SEQ. ID. NO. 212
1 MQLRFEYQL TKMQFFSLVS IFLFLSFLFL LRIWKNSNSQ SKLPPGPWK LPILGMLHM
61 VGGLPHHVLR DLAKKYGPLM HQLGEVSAV VVTSPDTAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSDLAF CPYGDYWRQM RKICVLEVL AKNVRTFSSI RRNEVRLIN FIRSSGEPI
181 NVTERIFLFT SSMTCRSAFG QVFKEQDKFI QLIKEVILLA GGFDVADIFF SLKFLHVLSG
241 MKGKIMNAHH KVDAIVENVI NEHKKNLAIG KTNGALGGED LIDVLLRIMN DGGLQFPITN
301 DNIKAIIFDM FAAGTETSSS TIVWAMEMV KNPVFAKAQ AEVREAFRK ETFDENDVEE
361 LNYLKLVIE TLRHPPVPL LLPRECREET NINGTIPVK TKVMVNWL GRDPKYWNDA
421 ETFMPERFEQ CSKDFVGNNF EYLPFGGRR ICPGISFGLA NAYLPLAQLL YHFDWKLPAG
481 IEPSLDLITE LVGVTAAARKS DLYLVATPYQ PPQK

FIG. 107

NAME D209-AH10
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 213

1 ATATGCAACT GAGATTGAA GAATACCAAC TAACCAAAGT GCAGTTCTTC AGCTTGGTTT
61 CCATTTCTCCT ATTCTATCT TTCCCTTTTG TGTTAAGGAT ATGGAAGAAC TCCAATAGCC
121 AAAGCAAAAA GTGCCACCA GGTCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGGTTGGTGG ACTACCACAC CATGCTCTTA GAGATTTAGC CAAAAAATAT GGACCACTTA
241 TGCACCTTCA ATTAGGTGAA GTTCTGCGG TTGTGGTAC TTCTCCCTGAT ACGGCAAAAG
301 AAGTATTAAA AACTCATGAC ATCGCTTTTG CGCTAGGCC TAGCCTTTTG GCCCGGAGA
361 TTGCTGTGAA CAATAGGTCT GACTAGCCT TTTGCCCCCTA TGGCGACTAT TGGAGACAAA
421 TGCCTAAAT ATGTCCTTG GAAGTGCCTA GTGCCAGAA TGTCGGACA TTAGCTCTA
481 TTAGGCGGAA TGAAGTTCTT CGTCTCATTA ATTTTATCCG GTCATCTCTT GGTGAACCTA
541 TTAATGTTAC GGAAAGATC TTGTTGTTCA CAAGCTCCAT GACATGTAGA TCAGCGTTG
601 GGCAGTGTG CAAAGAGCAA GACAAATTAA TACAACATAAT TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGTTGCT GACATATTCC CTTCACTGAA GTTCTTCAT GTGCTCAGTG
721 GAATGAAGGG TAAGATTATG AATGCACACC ATAAGGTAGA TGCCATTGTT GAGAATGTCA
781 TCAATGAGCA CAAGAAAAAT CTTGCAATTG GGAAAATCTAA TGAGCGTTA GGAGGTGAAG
841 ATTTAATTGAA TGTTCTCTA AGACTTATGAA ATGATGGGAG CCTTCATATT CCTATCACCA
901 ACGACAACAT CAAAGCTTA ATTTTGACAA TTGTTGCTC CGGGACGGAG ACTTCATCGT
961 CAACAAATTG TGCGGCTATG GTAGAAATGG TGAAAAAATCC AGCCGTATTG GCGAAAGCTC
1021 AAGCAGAAGT AAGAGAACCA TTAGAGGAA AGAAAATTT CGATGAAAAT GATGTGGAGG
1081 AGCTAAACTA CCTAAAGTTA GTAATAAAAG AACTCTAAAG ACTTCATCCA CCGGTTCCAC
1141 TTTTGCTCCC AAAGGAATGT AGGGAAAGAGA CAAATATAAA CGGCTACACT ATTCCCTGAA
1201 AGACCAAAGT CATGGTTAAT GTTGGGCTT TGGAAGAGA TCCAAAATAT TGGAAATGACG
1261 CAGAAACTT TATGCCAGAG AGATTTGAGC AGTGTCTAA GGATTTGTT GGTAATAATT
1321 TTGAATATCT TCCATTGGT GCGGAAAGGA GGATTTGTC TGGAATTTCG TTTGGCTTAG
1381 CTAATGCTTA TTGCCCCATTG GCTCAATTAC TATATCACTT CGATTGGAAA CTCCCTGCTG
1441 GAATGAAACC AAGGCACTTG GACTTGACTG AGTTGGTTGG AGTAACGCC GCTAGAAAAA
1501 GTGACCTTTA CTTGGTTGGC ACTCTTATC AACCTCCCTA AAAGTGATTT AATGGTTTCA
1561 AGTTTATT TCCCTAGCAA CCCCACTATT GTCCTATCTT TCTTTGGTG TTTTGGTT
1621 TATCTACT TATAACATGCA TCTTTTACCA TATAGGAATG TACCATGTTG TCG

SEQ. ID. NO. 214

1 MQLRFEEYQL TKVQFFSLVS IFLFLSFLFL LRIWKNSNQ SKKLPPGPWK LPILGSMLHM
61 VGGLPHHVLR DLAKKYGPML HLQLGEVSAV VVTPDTEAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSDLAF CPYGDYWRQM RKICVLEVLK AKNVRTFSSI RRNEVRLIN FIRSSSGEPI
181 NVTERIFLFT SSMTCRSAFG QVFKEQDKFI QLKEVILLA GGFDVADIFP SLKFLHVLSG
241 MKGKIMNAHH KVDAIVENVI NEHKKNLAIG KTNGALGGED LIDVPLRIMN DGLLQFPITN
301 DNKAIIFDM FAAGTETSSS TIVWAMVEMV KNPRAVFAKAO AEVRREAFRKG ETFDENDVEE
361 LNYLKLVIKE TLRLHPPVPL LLPRECREET NINGYTIPVK TKVMVNWL GRDPKYWNDA
421 ETFMPERFEQ CSKDFVGNNF EYLPFGGGRR ICPGISFGLA NAYLPLAQLL YHFDWKLPAG
481 IEPSDDLITE LVGVTAAARKS DLYLVATPYQ PPQK

FIG. 108

NAME D87A-AF3
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 215

1 GAAATGGAA ATGCTCACAA CAGCAAATT GCAGCAATCT GTTTGATAAT TTTCTTGGTA
61 TATAAACAT GGGATTGTT GAAGTGGATA TGGATTAAGC CAAAGAAACT GGAGAGTTGC
121 CTCAGAAAAC AGGGACTCAA AGGAAATTCC TACAGGCTAT TCTATGGAGA TATGAAAGAA
181 TTGTCCAAA GTCTCAAGGA AATCAATTCA AAGCCCATCA TCAATCTATC AAATGAAGTA
241 GCCCCAAGAA TCATTCCTTA TTATCTTGAATC ATCATCCAAA AATATGGTAA AAGATGTTT
301 GTTTGGCAAG GACCAACCCC CGCAATATTAA ATAACAGAGC CAGAATTAAAT AAAGGAGATA
361 TTTGGTAAGA ACTATGTTT TCAGAAGCCT ATAATCCCA ACCCACTGAC CAAGTTATTG
421 GCTCGAGGTG TTGTAAGCTA CGAGGAGAA AAATGGGAA AACACAGAAA GATCTTAAAC
481 CCTGCCCTTC ATATGGAGAA GTTGAAGCAT ATGCTACCAG CATTCTACTT GAGCTCTAGT
541 GAGATGCTGA ACAAAATGGGA GGAGATTATC CGAGTAAAAG AATCAAATGA GTTGGACATT
601 TGGCCTCATC TTCAAAAGAT GACAAGTGT GTGATTTCTC GTGCTGCC TTGGTAGTAC
661 TACGAAAGAAGAAGAAGAAT ATTGAACTT CAAGAAAGAC AAAGCTGAGTA TCTAACGAG
721 ACATTCAATT CAGTTTATAT CCCAGGTTCC AGATTTTTTC CCAATAAAAT GAACAAAGA
781 ATGAAAAGAAT GTGAAAAGGA AGTACGAGAA ACAATTACGT GTCTAATTGA CAACAGATTA
841 AAGGCAAAGAAGAAGGCAAGA TGCAAGGCC CTCAATGATG ACCTACTGGG TATATTATTA
901 GAGTCAAAATT CTATAAGAAT TGAAAGAACAT GTAAACAGA AGTTGGAAAT GAGTATACT
961 GAAGTAATTG AAGAGTCAA ATTATCTAT TTTGCTGCC AAGAGACTAC ATCAGTATTG
1021 CTTGTGTGGA CACTGATTTT GTAGGGAGA AATCCAGAAAT GGCAGGAACG TGCTAGAG
1081 GAAGTTTTTC AAGCCTTGG AAGTGATAAA CCAACTTTG ACGAATTATA TCGCTTGA
1141 ATTGTGACGA TGATTTGT CGAGTCTTTA AGGTATATC CACCAATAGC AACTCGTACT
1201 CGAAGGACTA ATGAAGAAC AAAATTAGGG GAACTAGATT TACCAAAGGG TGCACTGCTC
1261 TTTATACAA CAATCTTATT ACATCTTGAC AAGGAAATTG GGGGTGAAGA TGAGATGAG
1321 TTCAATCCGG AGAGATTAG CGAAGGGGTG GCAAAGGCAA CAAAGGGGAA ATGACATAT
1381 TTTCCATTG GTCAGGACCC GCGAAAATGC ATTGGGAAAC ACTTCGGCAT TTTGGAAAGCA
1441 AAAATGGCTA TAGCTATGAT TCTACAACGC TTCTCCTTCG AGCTCTCTCC ATCTTATACA
1501 CACTCTCAT ACACGTGGT CACTTGAAA CCCAAATATG GTGCTCCCT AATAATGCA
1561 AGGCTGTAGT CCTGTGAGAA

SEQ. ID. NO. 216

1 MGNAHNSKIA AICLIIFLVY KAWELLKWIW IKPKKLESCL RKQGLKGNSY RLFYGDMMEL
61 SKSLKEINSK PIINLSNEVA PRIPYYLEI IOKYKGKRCFV WQGPTPAILI TEPELIKEIF
121 GKNYVFQPN NPNELTLLA RGVSYEEEK WAKHRKILNP AFHMEKLHM LPAFYLSCSE
181 MLNKWEEIIP VKESENLDIW PHLQRMTSDV ISRAAFGSSY EEEGRRIFFLQ EEEQAEYLTKT
241 FNSVYIPGSR FFPNKMNKRM KECEKEVRET ITCLIDNRLK AKEEGNGKAL NDDLLGILLE
301 SNSIEIEEHG NKKFGMSIPE VIEECKLFYF AGQETTSVLL VWTLILLGRN PEWGERAREE
361 VFQAFGSDKP TFDELYRLKI VTMILYESLR LYPIIATRTR RTNEETKLGE LDLPKGALLF
421 IPTILHLHDK EIWGEDADEF NPERFSEGVA KATKGKMTYF PFGAGPRKCI GQNFAILEAK
481 MAIAMILQRF SFELSPSYTH SPYTVVTLKP KYGAPLIMHR L

FIG. 109

NAME D208-AC8
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 217

1 ATGCTTTCTC CCATAGAACG CTTGTAGGA CTAGTAACCT TCACATTTCT CTTATACTTC
61 CTATGGACAA AAAAATCTCA AAAACTTCCA AAACCCCTTAC CACCGAAAAT CCCCGGAGGA
121 TGGCCGGTAA TCGGCCATCT TTTCACTTC AATAACGACG GCGACGACCG TCCATTAGCT
181 CGAAAGCTCG GAGACTTAGC TGATAAAATAC GGCCCCGTTT TCACTTTCTG GCTAGGTCTT
241 CCCCTTGTC TAGTTGTAAG CAGTTACGAA GTATAAAAAG ATTGCTTCTC TACAAATGAT
301 GCCATTTCTC CCAATCGTCC AGCTCTTCTT TACCGCGAAAT ACCTTGGCTA CAAATATACA
361 ATGCTTTCTC TAGCAAATTA CGGACCTTAC TGGCGAAAAA ATCGTAATT AGTCATTCA
421 GAAGTTCTC CTGCTAGTCG TCTCGAAAAA TCTAAACAAAG TGAGATTCA CAGAATTCAA
481 ACGGACATTA AGAATTTATA CACTCGAATT ATGGAAATT CGAGTACGAT AAATCTA
541 GATTGGTTAG AAGAATTGAA TTGGTCTG ATCGTGAAGA TGATCGTGG GAAAAATTAT
601 GAATCCGGTA AAGGAGATGCA ACAAGTGGAA AGATTTAAGA ATGCCTTTAA GGATTTATG
661 GTTTTATCAA TGGATTGT ATTATGGGT GCATTTCCAA TTCCATTATT TAAATGGGTG
721 GATTTCAAG GTCATATTAA GGCATGAAA AGGACATTAA AGGATATAGA TTCTGTTTT
781 CAGAACTGGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TAGAGGTTGG TGCAGAAGGG
841 AATGAACAAG ATTCATGTA TGTGGTCTT TCAAAATTGA GTAAAGAATA TCTTGATGAA
901 GGTTACTCTC GTGATACTGT CATTAAGGCA ACAGTTTTA GTTGGTCTT GGATGCAGCA
961 GACACAGTT CTCTCACAT AAATGGGGG ATGACATTAT TGATAAACAA TCAAAATGCC
1021 TTGATGAAAG CACAAGAAGA GATAAGACACA AAAGTTGGTA AGGATAGATG GGTAGAAGAG
1081 AGTGTATTA AGGATTTAGT ATACCTCCAA CCTATTGTTA AAAAGGTGTT ACGATTATAT
1141 CCACCAAGGAC CTTTGTAGT ACCACATGAA ATGTGAAAGG ATTGTGTTGT TAGTGGATAT
1201 CACATTCTCA AAGGGACTAG ATTATCGCA AACGTGATGA AACTGCAGCG CGATCTAA
1261 CTCTTGTCAA ATCCTGATAA GTTCGATCCA GAGAGATTCA TCGCTGGTGA TATTGACTTC
1321 CGTGGTCACC ACTATGAGTT TATCCCATTT GGTCTGGAA GACGATCTG TCCGGGAGATG
1381 ACTTATGCAT TGCAAGTGGA ACACCTAACAA ATGGCACATT TAATCCAGGG TTTCAATTAC
1441 AAAACTCCAA ATGACGAGGC CTGGATATG AAGGAAGGTG CAGGCATAAC AATACGTAA
1501 GTAAATCCAG TGGATTGAT AATAACGCCT CGCTTGGCAC CTGAGCTTA CTAAACCTA
1561 AGATGTTCA TCTTGGTTGA TCATTGT

SEQ. ID. NO. 218

1 MLSPIEAFVG LVTFTFLLYF LWTKKSQKLP KPLPPKIPGG WPVIGHLFHF NNDGDDRPLA
61 RKLGLDLADKY GPVFTFRLGL PLVLVVSSYE AIKDCFSTND AIFSNPALL YGEYLGYNNT
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKQVRFTRIQ TSIKNLYTRI NGNSSTINLT
181 DWLEELNFGI IVKMIAGKNY ESGKGDEQVE RFKNAFKDFM VLSMEFVLWD AFFIPLFKWV
241 DFQGHIKAMK RTFKDIDSVF QNWLEEHINK REKIEVGAEG NEQDFIDVVL SKLSKEYLDE
301 GYSRDTVIKA TVFSLVLDAA DTVALHINWG MTLLINNQNA LMKAQEEDIT KVKGDRWEE
361 SDIKDLVYLQ AIVKKVIRLY PPGPLLVPHE NVKDCVVSGY HIPKGTRLFA NVMKLQRDPK
421 LLSNPDKFDP ERFIAGDIDF RGHHYEFIPF GSGRRSCPBM TYALQVEHLT MAHLIQGFNY
481 KTPNDEALDM KEGAGITIRK VNPVELIITP RLAPELY

FIG. 110

NAME D215-AB5
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 219

1 GGGAGAAGGC CTTCAATATG GAGATACCAT ATTACAGCTT AAAAATTGCA ATTTCTTCAT
61 TTGCAATTAT CTTTGACTA AGATGGGCAT GGAAAATCTT GAATTATGTG TGCTTAAAC
121 CAAAAGAATT GGAGAAATAC CTCAGACAGC AGGGTTTCAA AGGAAACTCT TACAAATTCT
181 TGTGTTGGGG A TATGAAAGAG ACGAAGAAAA TGGGTGAAGA AGCTATGTCT AAGCCAATCA
241 ATTTCTCTCA TGACATGATT TGGCCTAGAG TTATGCCATT CATCCACAAA ACCATCACCA
301 ATTATGGTA A GAATTTGTATT GTGTTGGTTG GGCCAAAGACC AGCAGTCTG ATCACAGACC
361 CGGAACCTGT AAAGGAGGTG CTAACGAAGA ATTTCTGCTA TCAGAAGCGG CTTGGCAATC
421 CACTCACAAA GTTGGCAGCA ACTGGAAATT CAGGCTATGA AACAGATAAA TGGGCTACAC
481 ATAGAAGGCT TCTCAATCTC GCTTTTCACC TTGACAAGTT GAAGCATAATG CTACCTGCAT
541 TCCAATTAC TGCTAGTGAG ATTTGAGCA AATTGGAGAA AGTTGTTCA CCAAACGGAA
601 CAGAGATAGA TGTGTGCCAA TATTCACAAA CTTTGACAAAG TGATGCCATT TCAAGAACATG
661 CGTTTGGAAAG TAGTTATGAA GAAGGAAGAA AGATTTTGA CCTTCAAAAAA GAACAACATT
721 CACTATTCT AGAAAGTTCA CGCAACATAT ATATTCCAGG ATGGAGGTTT TTGCCAACGA
781 AAAGGAACAA AAGGATGAAG CAAATATTTA ATGAAAGTACG AGCACTGGTA TTTGGAATT
841 TTAAGAAAAG GATGAGTATG ATTGAAATG GAGAAGCACC TGATGATTAA TTGGGAATAT
901 TATTGGCCTC CAATTTAAAAA GAATCCAAC AACATGGAAA CAACAAGAAA TTGGTATGA
961 GTATTGATGA GGTGATTGAA GAGTGTAAAC TCTTCTATT TGCTGGCAA GAGACTACTT
1021 CATCTTACT TGTATGGACT ATGATTTGT TGTGCAATA TCCTAATTGG CAAGATAAG
1081 CTAGAGAAGA GGTTTGC A GTGTTGGGA GTAGGGAAAGT TGACTATGAC AAGITGAATC
1141 AGCTAAAAAT AGTAACATG ATCTTAAACG AGGTCTTAAG GTTGTATCCA GCAGGATATG
1201 TGATTAATCG AATGGTAAAC AAAGAAACAA AGTAGGGAA TTGTGTTTA CCAGCCCCG
1261 TACAGTCGT GTTACCAACA ATGTTGTTGC AACATGATAC TGAATATGG GGAGATGATG
1321 CAATGGAGTT CAATCCAGAG AGATTTAGTG ATGGAATATC CAAAGCAACA AAAGGAAAAC
1381 TTGTGTTTT TCCATTTAGT TGGGGTCCAA GAATATGT TGGGAAAAT TTTGCTATGT
1441 TAGAGGCTAA AATGGCAATG GCTATGATTC TGAAACCTA TGCAATTGAA CTCTCTCCAT
1501 CTTATGCTCA TGCTCCTCAT CCACTACTAC TTCAACCTCA ATATGGTGT CTCAATTAT
1561 TGTACAAAGT GTAGATATGG TCAATCTGGA ACTTGTATG GAACTTTAT CATCGTAATC
1621 AACCATATTG AGGG

SEQ. ID. NO. 220

1 MEIPYYSILKI AISSFAIIFV LRWAWKILNY VWLKPKELEK YLROOGFKGN SYKFLFGDMK
61 ETKKMGEEM SKPINFSHDM IWPVRVMPFIH KTITNYGKNC IVWFGRPRPAV LITDPELVKE
121 VLTKNFVYQK PLGNPLTKLA ATGIAGYETD KWATHRRLLN PAFHLDKLKH MLPAFQFTAS
181 EMLSKLEKVV SPNGTEIDVW PYLQTLTSDA ISRTAFGSSY EERKRIFDLQ KEQLSILEV
241 SRTIYIPGWR FLPTKRNKRM KQIFNEVRAL VFGIICKRMS MIENGEADD LLGILLASNL
301 KEIQQHGNNK KFGMSIDEVI BECKLFYFAG QETTSSLVW TMILLCKYPN WQDKAREEVL
361 QVEGSREVDY DKLNQLKIVT MILNEVRLY PAGYVINRMV NKETKLGNC LPAGVQLVLP
421 TMILLQHDTEI WGDDAMEFNP ERFSDGISKA TKGKLVFFPF SWGPRICIGQ NFAMLEAKMA
481 MAMILKTYAF ELSPSYAHAP HPLLQPQYG AQLILYKL

FIG. 111

NAME D103-AH3
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 221

1 ATGGTTTTC CCATAGAAC CTTGTAGGA CTAGTAACCT TCACATTCT CTTATACTC
61 CTATGGACAA AAAAATCTCA AAAACTTCCA AAACCCCTTAC CACCGAAAAT CCCCGGAGGA
121 TGGCCGGTAA TCGGCCACCT TTTCACTTC AATAACGACG GCGACGACCG TCCATTAGCT
181 CGAAAACCTG GAGACTTAGC TGATAAAATAC GGCCCCGTTT TCACTTTCG GCTAGGTCTT
241 CCCCTTGTC TAGTTGTAAG CAGTTACGAA GTTACAAAAG ATTGCTTCTC TACAAATGAC
301 GCCATTTCT CCAATCGTCC AGCTTTCTT TACGGCGAA ACCTTGGCTA CAATAATACA
361 ATGCTTTTC TAGCAAATTAA CGGACCTTAC TGGCGAAAAA ATCGTAAATT ATGTCATTAG
421 GAAGTTCTCT CTGCTAGTCG TCTCGAAAAA TTCAAAACAAG TGAGATTAC CAGAATTCAA
481 ACGGACATTA AGAAATTATA CACTCGAATT ATGGAAATT CGAGTACGAT AAATCTAACT
541 GATTGGTAG AAGAATTGAA TTTGGTCTG ATCTGAAAAA TGATCGCTGG GAAAAATTAT
601 GAATCCGGTA AAGGAGATGA ACAAGTGGAA AGATTAAAGA ATGCGTTAA GGATTTATG
661 GTTTTATCAA TGGATTGT ATTATGGGT GCATTTCCTA TTCCATTATT TAAATGGGTG
721 GATTTCAAG GTCATATTAA GACAATGAAA AGGACATTAA AGGATATAGA TTCTGTTTT
781 CAGAACTGGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TGGAGGTGG TGCGAGAAGGG
841 AATGAACAAG ATTCATTGA TGTGGTGCCT TCAAAATTGA CTAAAGAATA TCTTGATGAA
901 GGTTACTCTC GTGATGACTGT CATTAAAGCA ACAGTTTTA GTTGGTCTT GGATGCAGCA
961 GACACAGTT CTCTTCACAT AAATGGGGAA ATGACATTAT TGATAAAACAA TCAAAATGCC
1021 TTGATGAAAG CACAAAGAAGA GATAGACACA AAAGTTGGTA AGGATAGATG GGTAGAAGAG
1081 AGTGATATTAA AGGATTTAGT ATACCTCCAA GCTATTGTTA AAAAGGTGTT ACGATTATAT
1141 CCACCAGGAC CTTGGTTAGT ACCACATGAA ATGTTAAAGG ATTGTGTTGT TAGTGGATAT
1201 CACATTCTCA AAGGGACTAG ATTATTCGCA AACGTGATGA AACTGCAGGG CGATCCTAA
1261 CTCTTGTCAA ATCCTGATAA GTTCGATCCA GAGAGATTCA TCGCTGGTGA TATTGACTTC
1321 CGTGGTCAACC ATATGAGTT TATCCCATCT GGTTCTGGAA GACGATCTG TCCGGGGATG
1381 ACTTATGCAT TGCAAGTGGAA ACACCTAACAA ATGGCACATT TAATCCAGGG TTTCAATTAC
1441 AAAACTCCAA ATGACGAGGT CTGGATTATG AAGGAAGGTG CAGGCATAAC AATACGTAG
1501 GTAAATCCAG TGGATTGAT AATAACGCCCT CGCTTGGCAC CTGAGCTTA CTAAAACCTA
1561 AGATCTTCA TCTTGGTTGA TCATTGTTA ATA

SEQ. ID. NO. 222

1 MVFPIEAFVG LVTFTFLLYF LWTKKSQQLP KPLPPKIPGG WPVIGHLFHF NNDGDDRPLA
61 RKLGDLDKY GPVFTFRLGL PLVLVVSSYE ATKDCFSTND AIFSNRPAFL YGEYLGYNNT
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKQVRFTRIQ TSIKNLYTRI NGNSSTINLT
181 DWLEELNFGI IVKMIAGKNY ESGKGDEQVE RFKNAFKDFM VLSMEFVLWD AFFIPLFKWV
241 DFQGHIKTMK RTFKDIDSVF QNWLEEHINK REKMEVGAEG NEQDFIDVVL SKLSKEYLDE
301 GYSRDTVIKA TVFSIVLDAA DTVALHINWG MTLLINNQNA LMKAQEEDIT KVGKDRWVEE
361 SDIKDLVYIQL AIVKKVLRLY PPGPLLVPHE NVKDCVVSGY HIPKGTRLFA NVMKLQRDPK
421 LLSNPDKFDP ERFIAGDIDF RGHHYEFIPS GSGRRSCPBM TYALQVEHLT MAHLIQGFNY
481 KTPNDEVLDL KEGAGITIRK VNPVELIITP RLAPELY

FIG. 112

NAME D208-AD9
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 223

1 ATGCTTTCTC CCATAGAACGC CATTGTAGGA CTAGTAACCT TCACATTTCT CTTCTTCTTC
61 CTATGGACAA AAAATCTCA AAAACCTTC AAACCCCTAC CACCGAAAAT CCCGGAGGA
121 TGGCCGGTAA TCGGCATCT TTTCACCTTC AATGACGACG GCGACGACCG TCCATTAGCT
181 CGAAAACCTCG GAGACTTAGC TGACAAATAC GGCCCCGTTT TCACTTTTCG GCTAGGCCTT
241 CCCCTTGCTC TAGTTGTAAG CAGTTACGAA GCTGTAAAAG ACTGTTTCTC CACAAATGAC
301 GCCATTTTT CCAATCGTCC AGCTTTCTT TACGGCGATT ACCTTGGCTA CAATAATGCC
361 ATGCTTTCTT TGGCCAATTA CGGACCTTAC TGGCGAAAAA ATCGAAAAT AGTTTACAG
421 GAAGTTCTC CCGCTAGTCG TCTCGAAAAA TTCAACACG TGAGATTGC AAGAATTCAA
481 GCGAGCATGA AGAATTTATA TACTCGAATT GATGGAATT CGAGTACGAT AAATTTAATC
541 GATTGGTTAG AAGAATTGAA TTTTGGTCTG ATCGTGAAGA TGATCGCTGG AAAAATATAT
601 GAATCCGGA AAGGAGATGA ACAAGTGGAG AGATTTAAGA AACCGTTAA GGATTTATG
661 ATTTTATCAA TGGAGTTGT GTTATGGGAT GCATTTCCAA TTCCATTATT TAAATGGGTG
721 GATTTCAAG GGCATGTTAA GGCTATGAAA AGGACTTTA AAGATATAGA TTCTGTTTT
781 CAGAATTGGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TGAGGTTAA TGCAGAAGGG
841 AATGACAACAG ATTCATTGA TGTGTTGCTT TCAAAATGA GTAATGAATA TCTTGGTGA
901 GGTTACTCTC GTGATACTGT CATTGAAGCA ACGGTGTAA GTTTGGTCTT GGATGCAGCA
961 GACACAGTTG CTCTTCACAT AAAATGGGAA ATGGCATTAT TGATAAACAA TCAAAAGGCC
1021 TTGACCAAAG CACAAGAAGA GATAGACACA AAAGTTGTA AGGACAGATG GGTAGAAAG
1081 AGTGTATTA AGGATTTGGT ATACCTCCAA CCTATTGTT AAGAAAGTGT ACGATTATAT
1141 CCACCAAGGAC CTTTGTGTTACT ACCACAGGAA AATGTAGAAAG ATTGTGTTGT TAGTGGATAT
1201 CACATTCTA AAGGGACAAG ATTATTGCGCA AACGTCAATGA AACTGCAACG TGATCCTAAA
1261 CTCTGGCTG ATCTTGATAC TTTCGATCCA GAGAGATTCA TTGTTACTGA TATTGACTTT
1321 CGTGGTCAGT ACTATAAGTA TATCCCGTTT GGTCTGGAA GACGATCTG TCCAGGGATG
1381 ACTTATGCAT TGCAAGTGGA ACACCTAACAA ATGGCACATT TGATCCAAGG TTTCAATTAC
1441 AGAACTCCAA ATGACGAGCC CTGGATATG AAGGAAGGTG CAGGCATAAC TATACGTAAG
1501 GTAAACTCTG TGGAACTGAT AATAGCCCT CGCCCTGGCAC CTGAGCTTA TAAAAACCTA
1561 AGATGTTCA TCTTGGTTGA

SEQ. ID. NO. 224

1 MLSPPIEAIVG LVTFTFLFFF LWTKKSQKPS KPLPPKIPGG WPVIGHLFHF NDDGDDRPLA
61 RKLGDLDKY GPVFTFRLGL PLVLVVSSYE AVKDCFSTND AIFSNRPAFL YGDYLGYNNA
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKHVRFARIQ ASMKNLYTRI DGNSTINLT
181 DWLEELNFGL IVKMIAGKNY ESGKGKDEQVE RFKKAFKDFM ILSMEFVLWD AFFIPLFKWV
241 DFQGHVKAMK RTFKDIDSVF QNWLEEHINK REKMEVNAEG NEQDFIDVVL SKMSNEYLGE
301 GYSRDTVIEA TVFSLVLDAA DTVALHINWG MALLINNQKA LTKAQEELDT KVCKDRWVEE
361 SDIKDLVYLQ AIVKEVLRLY PPGPLLVPHE NVEDCVVSGY HIPKGTRLFA NVMKLQRDPK
421 LWSDPDTFDP ERFIATDIDF RGQYYKYIPF GPGRRSCPGM TYALQVEHLT MAHLIQGFNY
481 RTPNDEPLDM KEGAGITIRK VNPVELIIAP RLAPELY

FIG. 113

NAME D237-AD1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 225

1 TTTCATATAC CTTTAGTACT CTGAAATT TCAAATAATG GTTTATCTTC TTTCTCCCAT
61 AGAACGCATT GTAGGATTTG TAACCTTTTC ATTCTATTC TACTTTCTAT GGACAAAAAA
121 ACAATCAAAA ATCTTAAACC CACTACCTCC AAAAATCCCA GCTGGATGCC CAGTAATCGG
181 CCATCTTTT TATTTCAAGA ACAATGGCGA TGAAGATCGC CATTTCCTC AAAAATCGG
241 TGACTTAGCT GACAAATATG GTCCCCTCTT CACTTTCCGG TTAGGGTTTC GCCGTTCTT
301 GCGGGTAGT AGTTATGAG CTATGAAAGA ATGCTTCACT ACCAATGATA TCCATTTCGC
361 CGATCGCCA TCTTTACTCT ACGGAGAATA CTTTGCTAT ATAACGCCA TGCTTGCTGT
421 TGCCAAATAT GGCCCTTACT GGGAAAAAAA TCAGAAAGTTA GTCAATCAAG AAGTTCTCTC
481 CGTTAGTCGG CTCGAAAAT TCAAACATGT TAGATTTCATAATTCAAGA AAAATATAA
541 ACAATTGTAT AATTGTGATT CACCAATGGT GAAGATAAAC CTTAGTGATT GGATAGATAA
601 ATTGACATTC GACATCATTT TGAATATGGT TGTGGGAAG AACTATAATA ATGGACATGG
661 AGAAATACTC AAAGGTGCTT TCAGAAATT CATGGTCAA GCTATGGAGA TGGAGCTCTA
721 TGATGTTTT CACATCCAT TTTCAAGTG GTGGATCTT ACAGGGAATA TTAAGGCTAT
781 GAAACAACAT TTCAAGACA TTGATAATAT TATCCAAGGT TGGTAGATG AGCACATTA
841 GAAGAGAGAA ACAAGGATG TTGGAGGTGA AAACGAACAA GATTTTATAG ATGTTGCT
901 TTCCAAGATG AGCAGACAAAC ATCTTGGCGA GGGTTACTCT CATGACACAA CCATCAAAGC
961 AACTGTATTTC ACTTGGCTT TGATGCAAC AGACACACTT GCACCTTCATA TAAAGTGGGT
1021 AATGGCTTA ATGATAAAAC ATAAGCATGT CATGAAGAAA GCACAAGAAG AGATGGACAC
1081 AATTGTTGGT AGAGATAGAT GGGTAGAAGA GAGTGATATC AAGAATTGG TGTATCTCCA
1141 AGCAATTGTC AAAGAAGTAC TACGATTACA TCCACCCGCA CCTTTGTCAG TGCAACACT
1201 ATCTGTAGAA GATTGTGTG TCAATGGGTA CCATATTCTT AAGGGACTG CACTACTTAC
1261 CAATATTATG AAACATACAGC GAGATCCTCA AACATGGCCA AATCTGTATA AATTGATCC
1321 AGAGAGATTG CTGACGACTC ATGCTACTAT TGACTACCGC GGGCAGCACT ATGAGTCGAT
1381 CCCCTTGGT ACGGGGAGAC GAGCTGTCC CGCGATGAAT TATTGATTGC AAGTGGAAACA
1441 CCTTTCAATT GCTCATATGA TCCAAGGTTT CAGTTTGCA ACTACGACCA ATGAGCCTT
1501 GGATATGAAA CAAGGTGTGG GTTAACTTT ACCAAAGAAG ACTGATGTTG AAGTGTCAAT
1561 TACACCTCGC CTTCCCTCTA CGCTTATCA ATATTAAGAT GTTTGTTGT CGGGATTGCGT
1621 TCTGATCAAT CCCTCAATG

SEQ. ID. NO. 226

1 MVYLLSPIEA IVGFVTFSL FYFLWTKKQS KILNPLPPKI PGGWPVIGHL FYFKNNGEDD
61 RHFSQKLGLD ADKYGPVFTF RLGFRRFLAV SSYEAMKECF TTNDIHFAADR PSILLYGEYL
121 YNNAMLAVAL YGPYWKKNRK LVNQEVLVS RLEKFHKVRF SIIQKNIKQL YNCDSPMVKI
181 NLSDWIDKLT FDIILKMMVG KNYNNGHGEI LKVAFOKFMV QAMEMELYDV FHIPFFKWL
241 LTGNIKAMQ TFKDIDNIIQ GWLDEHIKKR ETKDVGGENE QDFIDVVLSK MSDEHLGEGY
301 SHDTTIKATV FTIVLDATDT LAIHKWVMA LMNNKHVMK KAOEEMDTIV GRDRVVEESD
361 IKNLVYLQAI VKEVRLHPP AELSVQHLSV EDCVVNGYHI PKGTALLTNI MKLQRDPQTW
421 PNPDKFDPER FLTTTHATIDY RGQHYESIPF GTGRRACPAM NYSLQVEHLS IAHHIQGSF
481 ATTTNEPLDM KQGVGLTLPK KTDVEVLITP RLPPTLYQY

FIG. 114

NAME D125-AF11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 227

1 CTTTTTCTCC CCAAAAAGA GCTCATTTCC CTTGTCCCCA AAAATGGATC TTCTCTTA
61 AGAGAAAGACC TTAATTGGTC TCTCTTTGC CATTATAATC GCTATAATTG TCTCTAGACT
121 TCGTTCAAAG CGTTTTAACG TTCCCCCAGG ACCAATCCA GTACCAAGTTT TTGGTAATTG
181 GCTTCAAGTT GGTGATGATT TAAACCCACAG AAATCTTACT GATTTGCCA AAAAATTGG
241 TGATCTTTTC TTGTTAAAGA TGCCCCAGCG TAATTTAGTT GTTGTGTCACT CTCCCTGAATT
301 AGCTAAAGAA GTTTTACACA CACAAAGGTGT TGAATTGGT TCAAGAACAA GAAATGGTGT
361 ATTTGATATT TTTACTGGAA AAGGTCAAGA TATGGTTTT ACTGTATATG GTGAACACTG
421 GAGAAAAATG AGGAGAAATTA TGACTGTACC ATTTTTACT AATAAAAGTTG TGCAAGCAATA
481 TAGAGGGGGG TGGGAGTTG AAGTGGCAAG TGTAATTGAG GATGTGAAGA AAAATCTGA
541 ATCTGCTACT AATGGGATG TATTAAGGAG GAGATTACAA TTGATGATGT ATAATAATAT
601 GTTGTAGATT ATGTTGATA GGAGATTGAG GAGTGAAGAT GATCCTTGT TTGTTAAGCT
661 TAAGGCTTG AATGGTAAA GGAGTAGATT GGCTCAGAGT TTTGAGTATA ATTATGGTGA
721 TTTTATTCCC ATTTGAGGC CTTTTTGAG AGGTATTG AAGATCTGTA AAGAAGTTAA
781 GGAGAAAGGG CTGCAGCTT TCAAAGATTA CTTTGTGAT GAAAGAAAAGA AGCTTTCAAA
841 TACCAAGAGC TTGGACAGCA ATGCTCTGAA ATGTGCGATT GATCACATTC TTGAGGCTCA
901 ACAGAAGGGG GAGATCAATG AGGACAACGT TCTTACATT GTTGAAAACA TCAATGTTGC
961 TGCTATAGAA ACCACATTAT GGTCAATTGAG CTGGGGTATC GCGCAGTTAG TCAACCAACCC
1021 TCACATCCAA AAGAAACTCC GCGACGAGAT TGACACAGTT CTTGGCCAG GAGTGAAGT
1081 GACTGAACCA GACACCCACA AGCTTCCATA CTTTCAGGCT GTGATCAAGG AGACGCTTCG
1141 TCTCCGTATG GCAATTCCC TATTAGTCCC ACACATGAAC CTTCACGATG CAAAGCTTGG
1201 CGGGTTTGAT ATTCCAGCAG AGAGCAAAAT CTTGGTTAAC GCTTGGTGGC TAGCTAACAA
1261 CCCGGCTCAT TGGAGAAAC CGGAAGAGTT CAGACCCGAG AGGTCTTCG AAGAGGAGAA
1321 GCACGTGAG GCCAATGGCA ATGACTTCAG ATATCTTCCG TTTGGCGTTG GTAGGAGGAG
1381 TTGCCCTGGA ATTATACTTG CATTGCCAAT TCTTGGCATT ACTTTGGGAC GTTGGTTCA
1441 GAACTTGAG CTGTCGCTC CTCCAGGCCA GTCGAAGCTC GACACCACAG AGAAAGGTGG
1501 ACAGTTCACT CTCCATATTG TGAAGCATTC CACCATTTG TTGAAACCAA GGTCTTGCTG
1561 AACTTTCTGA TCCTAATCAA TTAAGGGTT GAAGAAATT TATAATTATG

SEQ. ID. NO. 228

1 MDLLLIEKTL IGLFFAILIA IIIVSRLRSKR FKLPPGPIPV PVFGNWLQVG DDLNHRNLTD
61 FAKKFQDILFL LRMQORNLVV VSSPELAKEV LHQGVFEGS RTRNVVFIDF TGKQDMVFT
121 VYGEHWRKMR RIMTVPFFTIN KVQQYRGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNNMFRIM FDRRFESEDD PLFVKLKLNA GERSRLAQSF EYNYGDFIPI LRPFRLRGYLK
241 ICKEVKEKRL QLFKDYFVDE RKKLSNTKSL DSNALKAID HILEAQQKGE INEDNVLYIV
301 ENINVAIET TLWSIEWGIA ELVNPHIQK KLRDEIDTVL GPGVQVTEDP THKLPYLQAV
361 IKETLRLRMA IPLLVPHMNL HDACKLGGFDI PAESKILVNA WWLANNPAHW KKPEEFRPER
421 FFEEEEKHVEA NGNDFRYLPF GVGRRSCPGI ILALPILGIT LGRLVQNTEL LPPPGQSKLD
481 TTEKGQFSL HILKHSTIVL KPRSC

FIG. 115

NAME D134-AE11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 229

1 AACAAATAAA ATGGAGACAT TATTTAACAT CAAAGTTGCA GTTTCATTAG TAATTGTGAT
61 AATTTTCTG AGATGGGTAT GGAAATTCTT GAATTGGGTG TGGATTCAAC CAAAGAAAAT
121 GGAAAAAAGA CTAAAATGG AAGGTTTCAA AGGAAGCTCA TATAAGCTAT TATTGAGA
181 TATGAAAGAA ATAATACAA TGTTGAAGA AGCCAAAACC AAGCCTATGA ATTTTACCAA
241 TGATTATGTG GCTAGAGTCT TGCCCTACTT CACAAAGTTG ATGCTCCAAAT ATGGCAAGAA
301 TAGCTTTATG TGGTAGGGC CAAACCAAC ATATGTTTATC ACAGACCCCTG AACTAATAAG
361 GGAGATCTG TCAAAAGTT ACATATACCA GGAGATTCAA GCACATCCAA TCACTAAGTT
421 GCTAGCACAA GGACTAGTAA TTATGAGC AGAGAAATGG GCTAAGCATA GAAAATATT
481 CAATCCGTCA TTCACCTTG ACAAGTTGAA GCATATGCTA CCATCATTCT ACTTGAGTTG
541 TTGTGACATG CTCAGAAAAT GGGAAAGTAT AGCTTCTCA GAGGGATCAG AAATAGACGT
601 GTGGCCTTT CTGAAACGT TGACAAGCGA TGCTATTCA AGAACAGCTT TTGGTAGTAA
661 CTATGAAGAC GGGAGACAGA TATTGAGCT TCAAAAGAA CAAGCTGAGT TGATTTTACA
721 AGCAGCGCGA TGGCTTTACA TCCCCGGATG GAGGTTGAG CCAACAAAGA GGAACAAGAG
781 GATGAAGCAA ATCGCTAAAG AAGTACGATC ATTAGTGTG GGAATAATCA ATAAGAGAAT
841 AAGGAAATG AAAGCAGGGG AAGCTGCAA AGATGACTTA CTGGGAATAC TATTGGAATC
901 TAATTCAAA GAAATCCAA TGCACGGAA CAAGAACTTT GGCGATGACTA TCGACGAAGT
961 GATTGAAGAG TGCAAGTTT TTTACTTTGC TGGGCAAGAA ACTACTTCAG TTTTGCTGT
1021 TTGGACTTTG ATTTACTGA GTAAGCATGT CGATTGGCAA GAAAGAGCTA GAGAAGAAGT
1081 TCATCAAGTC TTTGGAAGTA ACAACACCTGA TTATGACCCA TTGAATCAGT TGAAAGTTGT
1141 AACGATGATA TTCAACGAGG TTTAAAGGTT GTACCCACCG GGAATTACCA TAAGTCGAAC
1201 TGTACACGAG GATACCAAAAT TAGGGAACTT GTCATTGCCA GCAGGGATAC AGCTTGTGTT
1261 ACCTGCAATT TGGTGCATC ATGACAATGA AATATGGGA GATGATGCAA AGGAGTCAA
1321 ACCAGAGAGG TTAGTGAAG AGTTAAATAA AGCAACAAAG GGTAAATTG CATATTTC
1381 ATTTAGTTGG GGACAGAGA TATGTCTGG ACTGAATTTT GCAATGTTAG AGGCAAAAT
1441 GGCACTTGCA TTGATTCTAC AACACTATGC TTTTGAGCTC TCTCCATCTT ATGCACATGC
1501 TCCTCATACAA ATTATCACTC TGCAACCTCA ACATGGTGT CCTTTGATTT TGCGCAAGCT
1561 GTAGCGCGA TATATTGATT GGTTATCTAC TGTAG

SEQ. ID. NO. 230

1 METLFIKVA VSLVIVIIFL RWWKFLNWV WIQPKKMEKR LKMEGFKGSS YKLLFGDMKE
61 INTMVEEAKT KPMNFTNDYV ARVLPHFTKL MLQYKGNSFM WLGPKPMTFI TDPELIREIL
121 SKSYIYQEIQ GNPIITKLLAQ GLVSYEAEKW AKHRIKIINPA FHLDFLKHM PFSYLSCCDM
181 LRKWEISIASS EGSEIDVWPFL LETLTSDAIS RTAFGSNYED GRQIFELQKE QAEILLQAAR
241 WLYIPGWRFV PTKRKNRMKQ IAKEVRSILV GIINKRIREM KAGEAKDDL LGILLESNFK
301 EIOMHGNKNF GMTIDEVIEE CKLFYFAGQE TTSVLLWTL ILLSKHVWDQ ERAREEVHQV
361 FGSNKPDYDA LNQLKVVTMI FNEVRLYPP GITISRTVHE DTKLGNLSP AGIQLVLPAL
421 WLHHDNEIWG DDAKEFKPER FSEGVNKATK GKFAVFPFW GPRICVGILNF AMLEAKMALA
481 LILQHYAFEL SPSYAHAPHT IITLQPQHG A PLILRKL

FIG. 116

NAME D209-AH12
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 231

1 ATATGCAACT GAGATTGAA GAATACCAAC TAACCAAAT GCAGTTCTTC AGCTTGGTTT
61 CCATTTCCCT ATTCTATCT TTCCCTTTTG TGTAAAGGAT ATGGAAGAAC TCCAATAGCC
121 AAAGAAAAAA GTGCCACCA GGTCCATGGA AACTACCAAT ACTAGGAAGT ATGCTTCATA
181 TGGTTGGTGG ACTACCACAC CATGTCTTA GAGATTAGC CAAAAAAATAT GGACCACTTA
241 TGCACCTTC ATTAGGTGAA GTTCTGCAGG TTGTGGTTAC TTCTCTGTAT ACGGCAAAAG
301 AAGTATTAAA AACTCATGAC ATCGCTTTG CGCTAGGCC TAGCCTTTG GCCCCGGAGA
361 TTGCTGTGTT CAATAGGT GATCTAGCCT TTTGCCCTA TGGCGACTAT TGGAGACAAA
421 TCGTAAAT ATGTGCTTG GAAGTGTCA GTGCCAAGAA TGTCGGACA TTTAGCTCTA
481 TTAGGCGGAA TGAAGTTCTT CGTCTCATTA ATTTTATCCG GTCATCTCT GGTGAACCTA
541 TTAATGTTAC GGAAGGATC TTTTGTCA CAAGCTCCAT GACATGAGA TCAGCGTTG
601 GGCAAGTGT CAAAGAGCAA GACAATTTA TACAACAT TAAAGAAGTG ATACTCTTAG
661 CAGGAGGGTT TGATGCTGCT GACATATTCC CTTCAGTCAA GTTCTTCAT GTGCTCAGTG
721 GAATGAAGGG TAAGATTATG AATGCACACC ATAAGGTAGA TGCCATTGTT GAGAATGTCA
781 TCAATGAGCA CAAGAAAAAT CTTGCAATTG GAAAAACTAA TGGAGCTTA GGAGGTGAAG
841 ATTTAATTGA TGTTCTCTA AGACTTATGA ATGATGGAGG CCTTCATT TT CCTATCACCA
901 ACGACACAT CAAAGCCATA ATTGTCACA TGTTGCTGC CGGGACAGAG ACTTCATCGT
961 CAACAATTGT GTGGGCTATG GTAGAAATGG TAAAAAATCC AGCCGTATTC GCGAAAGCTC
1021 AAGCAGAAAGT AAGAGAAGCA TTAGAGGGAA AAGAAACTTT CGATGAAAAT GATGTGGAGG
1081 AGCTAAACTA CCTAAAGTTA GTAATAAAAG AAACCTCTAAG ACTTCATCCA CCGGTTCCAC
1141 TTTGCTCCC AAGAGAATGT AGGGAAAGAGA CAAATATAAA CGGCTACACT ATTCCGTAA
1201 AGACCAAAAGT CATGGTTAAT GTTGGGCTT TGGGAAGAGA TCCAAATAT TGAATGACG
1261 CAGAAACCTT TATGCCAGAG AGATTTGAGC AGTGTCTAA GGATTTGCTT GGTAAATTATT
1321 TTGAATATCT TCCATTGCTT GCGGAAAGGA GGATTTGCTC TGGGATTTCG TTTGGCTTAG
1381 CTAATGCTTA TTTGCCATTG GCTCAATTAC TATATCACTT CGATTGGAAA CTCCTGCTG
1441 GAATCGAACCC AAGCGACTT GACTTGAATG AGTTGGTTGG AGTAACGTCC GCTAGAAAAAA
1501 GTGACCTTTA CTTGGTTGCG ACTCCTTATC AACCTCCTCA AAAGTGTATT AATGGTTCA
1561 AGTTTTATT TCCTAGCAAA CCCCACTT GTCTTATCTT TCTTTGGTG TTTTCGGTT
1621 TATCTACTCT AATACATGCA TCTTTACCA TATAGGAATG TACCATGTTG TCG

SEQ. ID. NO. 232

1 MQLRFEEYQL TKMQFFSLVS IFLFLSFLFL LRIWKNSNSQ SKKLPPGPWK LPILGSMLHM
61 VGGLPHVLR DLAKKYGPIM HLQLGEVSAV VVTSPDTAKE VLKTHDIAFA SRPSLLAPEI
121 VCYNRSIDLAF CPYGDYWRQM RKICVLEVLN AKNVRTFSSI RRNEVRLIN FIRSSSGEPI
181 NVTERIFLFT SSMTCRSAFG QVFKEQDKFI QLIKEVILLA GGFDVADIPF SLKFLHVLSG
241 MKGKIMNAHH KVDAIVENVI NEHKKNLAIG KTNGALGGED LIDVLLRIMN DGGLQPFITN
301 DNIKAIIFDM FAAGTETSSS TIVWAMVEMV KNPAVFAKAQ AEVREAFRGK ETFDENDVEE
361 LNYLKLVIKE TLRLHPPVPL LLPRECREET NINGYTIPVK TKVMVNWL GRDPKWND
421 ETFMPERFEQ CSKDFVGNN EYLPFGGRR ICPGISFGLA NAYLPLAQQL YHFDWKLPAG
481 IEPSDDLTE LVGVTAAARKS DLYLVATPYQ PPQK

FIG. 117

NAME D221-BB8
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 233

1 GAATTATTC ACGTGTGTA TTCCCTGTCT ATGATAGGAA GCTCGTTACC TCAGCGTACA
61 AACCCCAAAT AAAAATGAA TTCCCTGTG GTGTTAGCTT CTCTCTTCT CTTTGTGTTC
121 CTAATGAGGA TAAGCAAAGC AAAAAGCTC CCTCCAGGTC CAAGGAAACT GCCTATAATA
181 GGAAACCTTC ATCAAATTGG AAAATTACCT CATCGTTCAC TTCAAAAACT TTCTAATGAA
241 TATGGGGATT TCATTTTCTT GCAATTAGGT TCTGTACCGA CTGTTGTTGT CTCCTCAGCT
301 GACATTGCCA GAGAGATCCT TAGAACTCAC GACCTTGTT TCTCAGGCCG TCCGTCTTAA
361 TATGCTGCCA GAAAACTTTC CTACAATTGC TACAACGTTT CATTGCAAC CTATGGTAAT
421 TACTGGAGAG AGGCTCGGAA AATTCTAGTG TTGGAGTTGC TAAGTACAAA GAGAGTACAA
481 AGTTTCGAGG CAATTGAGA CGAGGAAGTA AGTAGCTTGG TTCAAAATTAT CTGTAGTTCC
541 TTGAGCTCAC CTGTTAACAT AAGCACATTA GCACTATCCT TGGCAAATAA CGTTGTTTG
601 CGAGTGGCTT TTGGGAAAGG GAGTGTGAA GGAGGAATG ATTATGAGGA TAGGAAGTTT
661 AATGAAATTTC TATATGAGAC ACAAGAATTA TTGGGTGAGT TTAACGTTGC TGATTATTTT
721 CCTCGGATGG CATGGATTAA CAAAATAAT GGGTTTGATG AACGATTGGA AAATAATTTT
781 AGGAAATTGG ATAAGTTTA TGACAAAGTA ATAGAAGATC ATCTTAATTC ATGTAGCTGG
841 ATGAAACAAA GGGATGATGA AGACCTTATT GATGTATTGC TTCGAATTCA AAAGGATCCA
901 AGCCAAGAAA TTCCCTCAA AGATGATCAC ATTAAGGGCC TTCTTGCAGA TATATTCCATA
961 GCTGGAACCTG ATACATCATC AACAACCATA GAATGGGCAA TGTCAAGACT CATAAAAAAAAT
1021 CCAAGAGTCT TGAGAAAAGC TCAAGAGGAA GTAGAGAAG TTTCTAAGGG AAAACAAAAG
1081 GTCCAAGAAA GTGATCTTG CAAACTAGAT TACTTGAAT TGGTCATCAA AGAACACTTT
1141 AGACTACACC CACCACTCCC ATTACTAGTC CCTCGAGTAA CAACAGCCAG CTGCAAAATA
1201 ATGGAATACG AAATTCAGT AAAATACAAGA GTCTTCATCA ACAGCAGACAG AAATGGGACA
1261 AATCCAAAT ACTGGAAAAA TCCATTGACA TTCTTGCCAG AGAGATTCTT GGATAAGGGAG
1321 ATTGATTACA GAGGCAAAA TTTTGAATTG TTGCCATTG GGGCAGGGAG AAGAGGGTGT
1381 CCAGGAATTA ATTTTCAAT ACCACTGTT GAGCTTGAC TTGCTAATCT ATTGTTTCAT
1441 TATAATTGGT CACTTCTGA AGGGATGCTA GCTAAGGATG TTGATATGGA AGAAGCTTTG
1501 GGATTACCA TGACACAAGAA ATCTCCCCCT TGCTTAGTAG CTTCTCATTA TACTTGTGAAG T
1561 GATTTAAAAA GATTTAGCA TAGCTATATA TAGCTTGAAG T

SEQ. ID. NO. 234

1 MNFLVVLASL FLFVFLMRIS KAKKLPPGPR KLPIIGNLHQ IGKLPHRSLQ KLSNEYGDFI
61 FLQLGSVPTV VVSSADIARE IFRTHDLVFS GRPALYAARK LSYNCYNVSF APYGNWREA
121 RKILVLELLS TKRVQSFEAI RDEEVSSLVQ IISSLSSPV NISTLALSIA NNVVCRAVFG
181 KGSAEGGNDY EDRKFNEILY ETQELLGEFN VADYFPRMAW INKINGFDER LENNFRELDK
241 FYDKVIEDHL NSCSWMKQRD DEDVIDVLLR IQKDPSQEIP LKDDHIKGLL ADIFIAAGTDT
301 SSTTIIEWAMS ELIKNPRVLR KAQEEVREVS KGKOKVQESD LCKLDYKLV IKETFRLHPP
361 VPLLVBRTT ASCKIMEYEI PVNTRVFINA TANGTNPKW ENPLTFPER FLDKEIDYRG
421 KNFELLPFGA GRRGCPGINF SIPLVELALA NLLFHYNWSL PEGMLAKDVD MEEALGITMH
481 KKSPCLVLS HYTC

FIG. 118

NAME D222-BH4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 235

1 CAAAGACTAA AAGATGTCGG TCTTTGCGGT TATTTCATTC TTTCTACTC TGTTTTTCT
61 TTTCAAATCA TATTGCCCCT CATCGAAAAC AAAGAAAAAT TCTCCACCAT CTCCCTCAAA
121 GCTTCCGTTA ATCGGTCACT TCCACAAACT AGGCTTACAA CCTCACCGTT CTCTACAAA
181 ACTATCAAAT GAACATGGTC CCATGATGAT GCTTCATTC GGTAGCGTAC CTGTGCTTAT
241 CGCTTCATCA GCTGAAGCTG CTTCGGAAAT CATGAAAACC CAAGATTGTG CTTTGCAAA
301 CAAACCCATT TCAACCATTC CTAGCAAGCT TTTCTTCGGC CCAAGGACG TTGCCTTCAC
361 CCCATATGGG GATTACTGGA GGAATGCCAG AAGCATTTGC ATGCTTCAGC TTTTGACAA
421 CAAAGAGTC CAGTCTTTG GAAAGATAAG GGAAGAAGAG ACTTCTCTC TTCTCCAGAG
481 GATTAGGGAA TCGCCAATT CAGAACGTCG TTTAACGGAG CTGTCGTTT CCATGACTAA
541 CGACATAGTT TGCAGGGTGG CCTTAGGAAG GAAGTATTGT GATGGGGAAG AAGGGAGGAA
601 ATTCAAGTCT TTGCTGTAG AGTTGTGGA ATTGTGGA GTTTTAACA TTGGAGATTA
661 CATGCCGTGG CTTGCATGGA TGAATCGTTT CAATGGTTG AATGCCAAAG TGGATAAAGT
721 GGCAGAAAGAG TTTGATGCAT TTTGGAGGA TGTGATTGAG GAACACGGAG GAAATAAGAA
781 ATCAGACACT GAAGCTGAAG GGGCAGACTT CGTGGATATA TTATTGCAAG TTCACAAAGA
841 AAACAAGGCT GGTTTCAAG TCGAAATGGA TGCAATCAA GCTATTATCA TGGATATGTT
901 TGCTGGGGA ACAGATACAA CTTCACGCT TCTAGAGTGG ACAATGACG AGCTCTTAAG
961 AAATCCAAA ACATGAAAT AGTTGAGAGA TGAGGTGAGA CAAGTGACTC AAGGGAAAGAC
1021 AGAGGTAACA GAGGATGACT TAGAGAAAAT GCCGTATTAA AGAGCAGCAG TTAAGGGAGAG
1081 TTCCAGGCTA CACTCTCCAG TGCCACTTCT ACCTCGAGAA GCAATTAAAGG ATGCAAAGGT
1141 TTTGGGCTAC GATATAGCTG CAGGGACTCA AGTCCCTCGT GTTCCATGGG CAATCTCAAG
1201 AGATCCAACCT TTGGGAAAT ATCCAGAGGA GTTCAACCTT GAAAGATTCT TGGATACTTC
1261 CATAGATTAC AAAGGCTTAC ATTTCGAGTT AATTCCATTG GGTGCAGGTC GGAGGGTTG
1321 CCCTGGCATC ACATTGCTA AGTTGTGAA TGAGCTAGCA TTGGCAAGAT TAATGTTCCA
1381 TTTTGATTTC TCGCTACCAA AGGAGCTTAA GCATGAGGAT TTGGACGTTG AGGAAGCTGC
1441 TGGAAATTACT GTTAGAAGGA AGTCCCCCT TTAGCCGTC GCACTCCAT GCTCGTGTGATT
1501 TTATTTAG AGCTCATTC ATGCCCTAAA AACTACTACT AGATAACTGC GTAGTAAATA
1561 ATGCTGGTA

SEQ. ID. NO. 236

1 MSVFAVISFF LLLFFLFKSY LPSSKTKNS PPSPSKLPLI GHFHKLGLQP HRSIQQLSNE
61 HGPMMMLQFG SVPVLIASSA EAASEIMKTO DLSFANKPIS TIPSKLFFGP KDVAFTPYGD
121 YWRNARSIQM LQLNNKRVQ SFRKIREEET SLLLQRRIES PNSEVDILTEL FVSMTNIDVC
181 RVALGRKYCD GEEGRKFKSL LLEFVELLGV FNIGDYMMPWL AWMNRFNGLN AKVDKVAKEF
241 DAFLEDVIEE HGGNKKSDE AEGADFVDIL LQVHKENKAG FQVEMDAIKA IIMDMFAAGT
301 DTTSTLLEWT MNELLRNPKT LNKLDRDEVRO VTQGKTEVTE DDLEKMPYL RAAVKESSRLH
361 SPVPLLPREA IKDAKVLGYD IAAGTQVILC PWAISRDPNL WENPEEFQPE RFLDTSIDYK
421 GLHFELIPFG AGRRGCPGIT FAKFVNELAL ARLMFHFDFL LPKGVKHEDL DVVEAAGITV
481 RRKFPLLAVA TPCS

FIG. 119

NAME D224-AF10
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 237

1 ATTATCCATC ACCTAAAATG GAGAAATTCTT GGGTTTTCT AGCCTTGGCA GGGCTATCTG
61 CATTAGCTTT TCTCTGTAAG ATAATCACCT GTCGAAGACC GGTTAACCGG AAAATACAC
121 CAGGTCCAAA ACCATGGCC ATCATTGGCA ATTTGAACCT ACTTGGTCCT ATACCACATC
181 AATCTTTGA CTTGCTTCC AAAAATATG GAGAGTTGAT GCTGCTGAAA TTTGGCTCCA
241 GGCCAGTTCT TGTTGCTTCA TCTGCTGAAA TGGAAAAACA GTTTTTAAAAA GTACATGATG
301 CTAATTCTGC CTCCCGCTCT ATGCTAGCTG GTGGAAGTA TACAAGCTAT AACATTGTTG
361 ACATGACATG GGCACCCAT GGTCCCTATT GGCGCCAAGC ACGACGAATT TACCTTAACC
421 AGATATTAC TCCGAAAAGG CTAGACTCGT TCGAGTACAT TCCTGTTGAA GAAAGGCAGG
481 CCTTGATTTCC CGAGCTGAAT TCCCTGCTG GAAAGGCATT TTTCTCAA GACCATTTGT
541 CGCGATTTAG CCTCTGAGC ATGACAAGGA TGGTTTGAG CAACAAGTAC TTTGGTGAAT
601 CAAAGCTTAG AGTAGAAGAT TTGAGTACCC TTGAGATCA ATGCTTCTTA CTTAATGGTG
661 CTTTCAACAT TGGAGATTGG ATTCCATGGC TCAGCTTCTT GGACCTACAA GGCTATGTGA
721 AACAAATGAA GGCTTGAAA AGAACTTTTG ATAAGTCCA CAACATTGTG CTAGATGATC
781 GCAGGGCTAA GAAGAATGCA GAGAAGAACT TTGTCACAA AGACATGGTT GATGTCTTGT
841 TGAAGATGGC TGAAGATCCT AATCTGGAAG TCAAACTCAC TAATGACTGT GTCAAAGGGT
901 TAATGCAGGA TTTACTAATC GGAGGAACAG ATAGCTTAAAC AGCAGCAGTG CAATGGCAT
961 TTCAAGAACT TCTTAGACGG CCAAGGGTTA TTGAGAAGGC AACCGAAGAG CTTGACCGGA
1021 TTGTCGGAA AGAGAGATGG GTAGAAGAGA AAGATTGTC GCAGCTATCT TACGTTGAAG
1081 CAATCCTAA GAAAACACTA AGGTTACATC CTCTAGGAAC TATGCTAGCA CCGCATTTGT
1141 CTATAAGAAGA TTGTAACGTG GCTGGTTATC ACATACAGAA AGGAACGACC GTTCTGGTGA
1201 ATGTTGGAC CATTGGAAGG CACCCAAAAT ACTGGGATAG AGCACAAGAG TTTCTCCCCG
1261 AGAGATTCTT AGAGAACGAC ATTGATATGG ACGGACATAA CTTGCTTTC TTGCCATTG
1321 GCTGGGGCG AAGGAGGTGC CCTGGCTATA GCCTTGGACT TAAGTTATC CGAGTAACAT
1381 TAGCCAACAT GTTGCATGGA TTCAACTGGA AATTACCTGA AGGTATGAAG CCAGAAAGATA
1441 TAAGTGTGGA AGAACATTAT GGCTCACTA CACATCCTAA GTTTCTGT CTTGTGATCT
1501 TGGAACTTAG ACTTCTTCA GATCTTATT CCCCCATCAC TTAATCCTAA GTGCTTCTCA
1561 TTATAGCATC ATATCAATAT CCCTC

SEQ. ID. NO. 238

1 MENSWVFLAGLSALAFLC KIITCRPVN RKIPPGPKPW PIIGNLNLLG PIPHQSFDLL
61 SKKYGEMLL KFGSPVVLVA SSAEMAKQFL KVHDANFASR PMLAGGKYTS YNYCDMTWP
121 YGPYWRQARR IYLNQIFTPK RLDSFEYIRV EERQUALISQL NSLAGKPFFL KDHLRSRSLC
181 SMTRMVLNSK YFGESTVRVE DLQYLVWDQWF LLNGAFNIGD WIPWLSPFLD QGYVKQMKAL
241 KRTFDKFHN VLDRRRAKKN AEKNFVPKDM VDVLLKMAED PNLEVKLND CVKGGLMQDLL
301 TGGTDSLTAQ VQWAFQELLR RPRVIEKATE ELDRIVGKER WVEEKDCSQL SYVEAILKET
361 LRLHPLGTM LAPHCAIEDCN VAGYDIQKGT TVLVNVWTIG RDPKYWDRAQ EFLPERFLN
421 DIDMDGHNF A FLPFGSGRRR CPGYSLGLKV IRVTLANMLH GFNWKLPEGM KPEDISVEEH
481 YGLTTHPKFP VPVILESRSL SDLYSPIT

FIG. 120

NAME D224-BD11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 239

1 CTCATTATCC ATCACCTAAA ATGGAGAATT CTGGGGTTTT TCTAGCCTTG GCAGGGCTAT
61 CTGCATTAGC TTTTCTCTGT AAAATAATCA CCTGTCGAAG ACCGGTTAAC CGAAAAATAC
121 CACCAGTCC AAAACCATGG CCCATCATTG GCAATTGAA CCTACTTGGT CCTATACAC
181 ATCAATCTT TGACTTGCTT TCCAAAAAAT ATGGAGAGTT GATGCTGCTG AAATTTGGCT
241 CCAGGCCAGT TCTTGTGCT TCATCTGCTG AAATGGCAA ACAGTTTTA AAAGTACATG
301 ATGCTAATT CGCCCTCCGT CCTATGCTAG CTGGTGGAAA GTATACAAGC TATAACTATT
361 GTGACATGAC ATGGCACCCC TATGGTCCCT ATTGGCGCCA AGCACGACGA CGAATTAC
421 TTAACCAGAT ATTTACTCCG AAAAGGCTAG ACTCCTTCGA GTACATTCTG GTTGAAGAAA
481 GGCAGGCCCTT GATTCCCG AGTGAATTCCC TTGCTGAAA GCCATTTTT CTCAAAGACC
541 ATTTGTCGCG ATTTAGCCTC TGAGCATGA CAAGGATGGT TTTGAGCAAC AAGTATTGTTG
601 GTGAATCAAC AGTTAGAGTA GAAGATTTGC AGTACCTGGT AGATCAATGG TTCTTACTTA
661 ATGGTGTCTT CAACATTGGA GATTGGATTG CATGGCTCAG CTTCTGGAC CTACAAGGCT
721 ATGTAAACA AATGAAGGCT TTGAAAAAGAA CTTTTGATAA GTTCCACAAAC ATTGTGCTAG
781 ATGATCACAG GGCTAAGAAG AATGCAGAGA AGAACTTTGT CCCCCAAAGAC ATGGTTGATG
841 TCTTGTGAA GATGGCTGAA GATCTTAATC TGGAGATC AAACACTAAT GACTGTGTC
901 AAGGGTTAAT GCAGGATTTA CTAAGTGGAG GAACAGATAG CTTAACAGCA GCAGTGCAT
961 GGGCATTCA AGAACATTCT AGACAGCCAA GGGTTATTGA GAAGGCAACC GAAGAGCTTG
1021 ACCGGATTGT CGGGAAAGAG AGATGGGTAG AAGAGAAAGA TTGCTCGCAG CTATCTACG
1081 TTGAAGCAAT CCTCAAGGAA ACACAAAGGT TACATCTCT AGGAACATAG CTAGCACCGC
1141 ATTGTGCTAT AGAAGATTGT AACCTGGCTG TTATGACAT ACAGAAAGGA ACGACCGTTC
1201 TGGTGAATGT TTGGACCATG GGAAGGGACC CAAATAACTG GGATAGAGCA CAAGAGTTTC
1261 TCCCCGAGAG ATTCTTAGAG AACGACATTG ATATGGACGG ACATAACTTT GCTTCTTG
1321 CATTGGCTC GGGCGAAGG AGGTGCCCTG GCTATAGCCT TGGACTTAAG GTTATCCGAG
1381 TAACATTAGC CAACATGTTG CATGGATTCA ACTGGAAATT ACCTGAAGGT ATGAAGCCAG
1441 AAGATAAAG TGTGGAAGAA CATTATGGGC TCACTACACA TCCTAAAGTTT CCTGTTCTG
1501 TGATCTTGGG ATCTAGACTT TCTTCAGATC TCTATTCCCC CATCACTTAA TCCTAAGTGC
1561 TTCCTATTAT AGCATCATAT CAATATCCCT C

SEQ. ID. NO. 240

1 MENSWVFLAL AGLSALAFLC KIITCRPVN RKIPPGPKPW PIIGNLNLLG PIPHQSFDLL
61 SKKYGEMLL KFGSRPVLV SSAEMAKQFL KVHDANFASR PMLAGGKYS YNYCDMTWAP
121 YGPYWRQARR RIYLNQIFTP KRLDSFEYIR VEERQALISQ LNSLAGKFFF LKDHLRSRFSL
181 CSMTRMVLSN KYFESTVRV EDLQYLVWDW FLLNGAFNIG DWIPWLSFLD LGGVVKQMK
241 LKRTFDKFHN IVLDDHRAKK NAEKNFVEKD MVDVLLKMAE DPNLEVKLTN DCVKGLMQDL
301 LTGGTDSLTA AVQWAFOELL RQPRVIEKAT EELDRIVGKE RWEEKDCSQ LSVEAILKE
361 TLRLHPLGTM LAPHCIAEDC NVAGYDIQKG TTVLVNVWTI GRDPKXWDRQ QEFLPERFLE
421 NDIDMDGHNF AFLPFGSGRR RCPGYSLGLK VIRVTLANML HGFNWKLPEG MKPEDISVEE
481 HYGLTTHPKF PVPVILESR SSDLYSPIT

FIG. 121

NAME D228-AD7
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 241

1 TGATAATGCT CTTCTACTC TTTGTAGCCC TTCCCTTCAT TCTTATTTT CTTCTTCCTA
61 AATTCAAAA TGGTGGAAAT AACAGATTGC CACCAAGGTCC TATAGGTTTA CCATTCAATTG
121 GAAATTGCGA TCAATACGAT AGTATAACTC CTACATATCTA TTTTTGGAAA CTTTCAAAAAA
181 AATATGGCAA AATCTCTCA TTAAAACCTTG CTTCTACTAA TGTTGTTAGTA GTTTCTTCAG
241 CAAAATTAGC AAAAGAAGTA TTGAAAAAAC AGAGTTAAT ATTTTGTAGT AGACCACATCTA
301 TTCTTGCCCA ACAAAAACTG TCTTATTATG GTCGTGATAT TGCTTTAAAT GATTATTGGA
361 GAGAAATGAG AAAAATTGTG TTCTCTTCATC TTTTTAGTTT AAAAAGTT CAATTATTTA
421 GTCCAATTG TGAAAGATGAA TTGTTTAGAA TGATTAAGGAA AATATCAAA CAAGCTTCATA
481 CTTCACAAAT TATTAATTG AGTATTTAA TGATTTCTATT ACAAGTACA ATTATTGTA
541 GAGTTGCTTT TGTTGTTAGG ATTGAAGAAG AAGCACATGC AAGGAAGAGA TTGATTTC
601 TTTTGGCCGA GGCACAAGAA ATGATGGCTA GTTCTTTGT ATCTGATTTC TTTCCCTTT
661 TAAAGTTGGAT TGATAAAATTG AGTGGATTGA CATATAGACT TGAGAGGAAT TTCAAGGATT
721 TGGATAATT TTATGAGGAA CTCATGGAG ACATCAAAA TCCTAATAAG CCAAAATATA
781 TGGAAGGAGA TATTGTTGAT CTTTGTCTAC ATTGAAAGAA AGAGAAATT ACACCACTG
841 ATCTCACTAT GGAAGATATA AAAGGAATTG TCATGAATGT GTTAGTTGCA GGATCAGACA
901 CTAGTGCAGC TGCTACTGTT TGCCCAATGA CAGCCTTGAT AAAGAATCT AAAGCCATGG
961 AAAAAGTTCA ATTGAAATC AGAAAATCAG TTGGAAGGAA AGGCATTGTA AATGAAGAAG
1021 ATGTCCAAAAT CATCCCTTAT TTAAAGCAG TGATAAAGGA AATATTAGA TTGTATCCAC
1081 CAGCTCCACT TTTAGTTCCA AGAGAACTAA TGAAACAAAC CATATTAGAA GTTATGAA
1141 TTCGGCCAAG AACCATAGTT CATGTTAACG CTTGGGCTAT AGCAAGGGAT CCTGAAATAT
1201 GGGAAATCC AGATGAATT ATAACCTGAGA GATTTTGAA TAGCAGTATC GATTACAAGG
1261 GTCAAGATT TGAGTTACTT CCATTGGTG CAGGAGAGG AGGTTGCCA GGTATTGCAC
1321 TTGGGGTTGC ATCCATGGAA CTTGCTTTGT CAAATCTCTT TTATGCATT GATTGGGAGT
1381 TGCCATTATGG AGTAAAGAA GAAGACATCG ACACAAACGT TAGGCCTGGA ATTGCCATGC
1441 ACAAGAAAAA CGAACTTGTC CTGTCCTAA AAAATTATT ATAAATTATA TTGGGACGTG
1501 GATCTCATGC TAGTCTGTG CGGTCAAGCTA AGCTTATTAT TTTTGGCTCA AATTATGTT
1561 ACATAATTAG TACATGTTA AAATGTATAA ATATAGTAGA ACCATTCTCA TGGTT

SEQ. ID. NO. 242

1 MLFLFLFVALP FILIFLLPKF KNNGNNRLPP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSLKLAS TNVVVVSSAK LAKEVLKKQD LIFCSRPSII GQQKLSYYGR DIAFNDYWRE
121 MRKICVLHLF SLKKVQLFSP IREDEVFRMI KKISKQASTS QIINLSNIMI SLTSTIICRV
181 AFGVRIEEEA HARKRFDPLL AEAQEMMASF FVSDFFPFLS WIDKLSGLTY RLERNFKDLD
241 NFYEELIEQH QNPNKPKYME GDIVDLLLQL KKEKLTPLDL TMEDIKGILM NVLVAGSDTS
301 AAATVWAMTA LIKNPKAMEK VQLEIRKSVG KKGIVNEEDV QNIPYFKAVI KEIFFLYPPA
361 PLLVPRESME KTILEGYEIR PRTIVHVNAW AIARDPEIWE NPDEFIFPERF LNSSIDYKGQ
421 DFELLPGAG RRGCPGIALG VASMELALSN LLYAFDWELP YGVKKEDIDT NVRPGIAMHK
481 KNELCLVPKN YL

FIG. 122

NAME D228-AH8
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 243

1 TGATAATGCT CTTCTACTC TTTGTAGCCC TTCCCTTCAT TCTTATTTT CTTCTTCATA
61 AATTCAAAA TGGTGGAAAT AACAGATTGC CACCAAGGTCC TATAGGTTTA CCATTCTATG
121 GAAATTGCA TCAATATGAT AGTATAACTC CTATATCTA TTTTGAACTT CTTTCCAAAA
181 AATATGGAA AATCTCTCA TAAACTTGTG CCTTACTAA TGTGGTAGTA GTTCTTCAG
241 CAAAATTAGC AAAAGAGTA TTGAAAAAAC AAGATTTAAT ATTTTGTAGT AGACCATCTA
301 TTCTTGGCA ACAAACGT TCTTATTATG GTCGTGATAT TGCTTTGCA CCTTATAATG
361 ATTATTGGAG AGAAATGAGA AAAATTGTG TTCTTCATCT TTTAGTTA AAAAAAGTTC
421 AATTATTAG TCCAATTGCGT GAAGATGAAG TTTTGAAT GATTAAGAAA ATATCAAAAC
481 AAGCTTCTAC TTCACAATT ATTAAATTGTA GTAAATTAAAT GATTTCATTA ACAAGTACAA
541 TTATTGCTAC AGTTGCTTT GGTTAGGT TTGAAGAAGA AGCACATGCA AGGAAGAGAT
601 TTGATTCTCT TTTGGCGAG GCACAAGAAA TGATGGCTAG TTTCTTGTA TCTGATTTT
661 TTCCCTTTT AAGTTGGATT GATAAATTAA GTGGATTGAC ATATAGACTT GAGAGGAATT
721 TCAAGGATTG GGATAAATTAA TATGAAGAAC TCATTGAGCA ACATCAAAAT CCTAATAAGC
781 CAAATATGAA GGAAGGAGAT ATTGTTGATC TTTTGCTACA ATTGAAGAAA GAGAAATTAA
841 CACCACCTGA TCTCACTATG GAAGATATAA AGGAATCT CATGAATGTG TTAGTTGAG
901 GATCAGACAC TAGTGCGCT GCTACTGTTT GGGCAATGAC AGCCTTGATA AAGAATCTA
961 AAGCCATGGA AAAAGTCAA TTAGAAATCA GAAAATCAGT TGGGAAGAAA GGCATTGTA
1021 ATGAAGAAGA TGTCCAAAC ATCCCTTATT TAAAGCACT GATAAAGGAA ATATTAGAT
1081 TGATTCACC AGCTTCACTT TTAGTTCCAA GAGAATCAAT GAAAAAAACC ATATTAGAAG
1141 GTTATGAAAT TCGGCGAAGA ACCATAGTTC ATGTTAACCC TTGGCTATA GCAAGGGATC
1201 CTGAATATG GAAAATCCA GATGAATTAA TACCTGAGAG ATTTTGAAT AGCAGTATCG
1261 ATTACAAAGGG TCAAGATTTT GAGTTACTTC CATTGGTGC AGGCAGAAGA GTTGCCTCAG
1321 GTATTGCACT TGGGGTTGCA TCCATGGAAC TTGCTTGTCA AAATCTTCTT TATGCATTG
1381 ATTGGGAGGT GCCTTATGGA GTGAAAAAAC AAGACATCGA CACAAACGTT AGGCCTGGAA
1441 TTGGCCATGCA CAAGAAAAAC GAATTGCCC TTGTCCCCAA AAATTATTA TAAATTATAT
1501 TGGGACGTGG ATCTCATGCT AGTTCTGTGC GGTCACTAA GCTTATTATT TTTGGCTCAA
1561 ATTATGATA CATAATTAGT ACATGTTAA AATGTATAA TATAGTAGAA CCATTCTCAT
1621 GGTT

SEQ. ID. NO. 244

1 MLFLLFVALP FILIFLLPKF KNNGNNRLLP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSILKLAS TNVVVSSAK LAKEVLKKQD LIFCSRPSIL GQQKLSYGR DIAFAPYNDY
121 WREMRKICVL HLFSLKKVQL FSPPIREDEVF RMIIKKISKQA STSQIINLSN LMISLTSTII
181 CRVAFGVRFEE EEAHARKRFD FLLAEAQEMM ASFFVSDFFF FLSWIDKLSG LTYRLERNFK
241 DLDFNFYEELI EQHQNPNKPK YMEGDIVDLL LQLKKEKITP LDLMEDIKG ILMNVLVAGS
301 DTSAAATWVA MTALIKNPKA MEKVQLEIRK SVGKKGIVNE EDVQNIPYFK AVIKEIFRLY
361 PPAPLLVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPE IWENPDEFIP ERFLNNSIDY
421 KGQDFELLPF GAGRRGCPGI ALGVASMELA LSNLLYAFDW ELPYGVKKED IDTNVRPGIA
481 MHKKNELCLV PKNYL

FIG. 123

NAME D235-AB1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 245

1 AAAATTCCATA ATGGTTTTTC CCATAGAACG CTTTGTAGGA CTAGTAACCT TCACATTCTC
61 CTTATACTTC CTATGGACAA AAAATCTCA AAAACTTCA AAACCCCTAC TACCGAAAAT
121 CCCCGGAGGA TGCCGGTAA TCGGCCATCT TTTCACTTC AATAACGACG GCGACGACCG
181 TCCATTAGCT CGAAAACTCG GAGACTTAGC TGATAAATAC GGCCCGTTT TCACTTTTCG
241 GCTAGGTCTT CCCCTCTGTC TAGTTGTAAG CAGITACGAA GCTATAAAAG ATTGCTCTC
301 TACAAATGAC GCCATTTCT CCAATCGTCC AGCTTTCTT TACCGCGAAT ACCTTGCTA
361 CAATAATACA ATGCTTTTC TAGCAAATTA CGGACCTTAC TGGCGAAAAA ATCGTAAATT
421 AGTCATTCTAG GAAGTTCTCT CTGCTAGTCG TCTCGAAAAA TTCAAAACAAG TGAGATTAC
481 CAGAATTCAA ACGAGCATTAA AGAATTTATA CACTCGAATT AATGAAAATT CGAGTACGAT
541 AAATCTAACT GATTGGTAG AAGAATTGGA TTTGGTCTG ATCGTGGAAA TGATCGTGG
601 GAAAATATT GAATCCGGTA AAGGAGATGA ACAAGTGAA AGATTTAAGA ATGCGTTTAA
661 GGATTTATG GTTTATCAA TGGAATTGT ATTATGGAT GCATTTCAA TTCCATTATT
721 TAAATGGGTG GATTTCAAG GTCATATTAA GGCAATGAAA AGGACATTAA AGGATATAGA
781 TTCTGTTTT CAGAAGCTGT TAGAGGAACA TATTAATAAA AGAGAAAAAA TGGAGGTGG
841 TGCGAGGGG AATGAAACAAG ATTTCATTGA TGTGGTCTT TCAAATTGA CTAAAGAATA
901 TCTTGATGAA GGTTACTCTC GTGATATGTG CATTAAAGCA ACAGTTTTA GTTGGTCTT
961 GGATGCAGCA GACACAGTT CTCTTCACAT AAATTGGGA ATGACATTAT TGATAAACAA
1021 TCAAAATGCC TTGATGAAAG CACAAGAAGA GATAGACACA AAAGTTGGTA AGTATAGATG
1081 GGTAGAAGAG AGTGTATTA AGGATTTAGT ATACCTCCAA GCTATTGTT AAAAGGTGTT
1141 ACGATTATAT CCACCCAGGAC CTTTGTAGT ACCACATGAA TATGAAAGG ATTGTGTTG
1201 TAGTGGATAT CACATTCTCA AAGGGACTAG ATTATTCGCA AACGTATGAA AACTGCAGCG
1261 CGATCTAAA CTCTGTCAA ATCCTGATAA GTTCGATCCA GAGAGATTCA TCGCTGGTGA
1321 TATCGACTTC CGTGGTCACC ACTATGAGTT TATCCCATTG GGTTCTGGAA GACCATCTT
1381 TCCGGGGATG ACTTATGATC TGCAAGTGGA ACACCTAAATGATCCACATT TAATCCAGGG
1441 TTTCATIAC AAAACTCCAA ATGACGAGGC CTTGGATATG AAGGAAGGTG CAGGCATAAC
1501 AATACGTAAG GTAAATCCGG TGGAATTGAT AATAACGCT CGCTTGGCAC CTGAGCTTTA
1561 CTAAAACCTA AGATCTTCA TCTTGGTTGA TCATTGTTA ATACTCCTAG ATAGATGGGT
1621 ATTCACTC

SEQ. ID. NO. 246

1 MVFPIEAFVG LVTFTFLLYF LWTKKSQKLP KPLPKIPGG WPVIGHLFHF NNDGDDRPLA
61 RKLGDILADKY GPVFTRFLGL PLVLVVSSYE AIKDCFSTND AIFSNRPAFL YGEYLGYNNNT
121 MLFLANYGPY WRKNRKLVIQ EVLSASRLEK FKQVRFTRIQ TSIKNLYTRI NGNSSTINLT
181 DWLEELDFGL IVMKIMAGKNY ESGKGDEQVE RFKNAFKDFM VLSMEFVLDW AFPIPLFKWV
241 DFQGHIKAMK RTFKDIDSVF QNWLEEHINK REKMEVGAEG NEQDFIDVVL SKLSKEYLDE
301 GYSRDTVIKA TVFSLVLDAA DTVALHINWG MTLLINNQNA LMKAQEIIDT KVGKYRWVEE
361 SDIKDLVYLO AIVKKVLRLY PPGPLLVPHE YVKDCVVSGY HIPKGTRLFA NVMKLQRDPK
421 LLSNPDKFDP ERFIAGDIDF RGHHYEFIPF GSGRRSCPBM TYALQVEHLT MAHLIQGFNY
481 KTPNDEALDM KEGAGITIRK VNPVELIITP RLAPELY

FIG. 124

NAME D243-AA2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 247

1 CAAAAAAATCA TTTCTCTCGT CTAAAATGGA TCTTCTCTTA CTAGAGAAGA CCTTAATTGG
61 TCTTTCTTT GCCATTTAA TCGCTTAAAT TGTCTCTAAA CTTCTTCAA AGCGTTTAA
121 GCTTCCCTCCA GGACCAATTG CAGTACCAAGT TTTGGTAAAT TGGCTTCAAG TTGGTGATGA
181 TTTAAACCAC AGAAATCTTA CTGATTATGC CAAAAAAATTT GGCGATCTTT TCTTGTAAAG
241 AATGGGTCAA CGTAACCTAG TTGTGTGTC ATCTCCCTAA TTACGCTAAAG AAGTTTACA
301 CACACAGGT GTTCAAGAAC AGAAAATGTT GTGTTGATA TTTTTACTGG
361 AAAAGGTCAA GATATGGTT TTACTGTATA TGTTGAACAT TGGAGAAAAA TGAGGAGAAAT
421 TATGACTGTA CCATTTTTA CTAATAAAAGT TGTCAACAG TATAGAGGGG GGTGGGAGTT
481 TGAGGGGCA AGTGTAAATTG AGGATGTGAA AAAAAATCCT GAATCTGCTA CTAATGGGAT
541 CGTATTAAGG AGGAGATTAC AATTAATGAT CTATAATAAT ATGTTTAGGA TTATGTTGA
601 TAGGAGATTG GAGAGTGAAG ATGATCCTTT GTTTGTAAAG CTTAAGGCTT TGAATGGTGA
661 AAGGAGTACA TTGGCTCAA GTTGTGAGTA TAATTATGGT GATTTTATTC CAATTTGAG
721 GCCTCTTTG AGAGGTTATT TGAAGATCTG TAAAGAAGTT AAGGAGAAGA GGCTGCAGCT
781 TTTCAAAGAT TACTTTGTTG ATGAAAGAAA GAAGCTTCA AATACCAAGA GCTCGGACAG
841 CAATGCCCTA AAATGTGCGA TTGATCACAT TCTTGAGGCT CAACAGAAGG GAGAGATCAA
901 TGAGGACAAC GTTCTTACA TTGTTGAAAA CATCAATGTT GCTGCAATTG AAACACATC
961 ATGGTCAATT GAGTGGGTTA TCGCCGAGCT AGTCAACCAAC CCTCACATCC AAAAGAAACT
1021 GCGCACGAG ATTGACACAG TTCTTGGACC AGGAGTGCAA GTGACTGAAC CAGACACCCA
1081 CAAGCTTCA TACCTTCAGG CTGTGATCAA GGAGGCACTT CGTCTCCGTG TGCAATTCC
1141 TCTATTAGTC CCACACATGA ACCCTCACGA CCACAAAGCTT GGCGGGCTTG ATATTCCAGC
1201 AGAGGACAA ACATCTGGTTA AGCCTTGGTG GTTAGCTAAC AACCCGGCTC ATTGGAGAA
1261 ACCCGAAGAG TTCAGACCCG AGAGGTTCTT TGAAAGGAGG AAGCATGTT AGGCCATATGG
1321 CAATGACTTC AGATATCTTC CGTTTGGCGT TGTTAGGAGG AGCTGCCCTG GAATTATACT
1381 TGCATTGCCA ATTCTTGGCA TCACTTTGGG ACCTTGGTT CAGAACTTG AGCTCTGCC
1441 TCCTCCAGGC CAGTCGAAGC TCGACACCCAC AGAGAAAGGT GGACAGTCA GTCTCCACAT
1501 TTGAAAGCAT TCCACCATTG TTGTTGAAACC AAGGTCTTTC TGAACCTTGT GATCTTATTA
1561 ATTAAGGGT TCTGAAGAAA TTGATAGTG TTGG

SEQ. ID. NO. 248

1 MDLLLLEKTL IGLFFAILIA LIVSKLRSKR FKLPPGPPIPV PVFGNWLVQV DDLNHRNLTD
61 YAKKFGLFL LRMQRNLVV VSSPELAKEV LHTQGVFEGS RTRNVVFDF TGKGQDMVFT
121 VYGEHWRKMR RIMTPFFTN KVQQYRGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMNNNNFRIM FDRLFESEDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPLLRLYLK
241 ICKEVKEKRL QLFKDYFVDE RKKLSNTKSS DSNALKAID HILEAQQKGE INEDNVLYIV
301 ENINVAIAET TLWSIEWGIA ELVNPHIQK KLRDEIDTVL GPGVQVTED THKLPYLOAV
361 IKEALRLRMA IPLLVPHMNL HDALKLGLDI PAESKILVNA WWLANNPAHW KKPEEPRPER
421 FFEEEKHVEA NGNDFRYLPF GVGRSCPGL ILALPILGIT LGRLVQNTEL LPPPGQSKLD
481 TTEKGQQFSL HILKHSTIVL KPRSF

FIG. 125

NAME D244-AD4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 249

1 AACATTTCG AATATAGTT TCCTAGTCAG TTCTAGCCTC CTTTCCCTTA GAAATAATGG
61 ATTATCATAT TTCTTCCAT TTCAAGCTC TTTAGGGCT TTTAGCCTTT GTGTTCTGT
121 CTATTATCTT ATGGAGAAGA AACTCACTT CAAGAAAATT AGCCCCGTGAA ATCCCAGGG
181 CATGGCTAT TATAGGCCAT CTCGTCAGC TGAGTGGTAC TGATAAGAAT ATCCCATTTC
241 CCCGAATTAT GGCGCTTTG GCAGATAAAAT ATGGACCTGT CTTCACACTG AGAATAGGGA
301 TGTAACCCCTA TTTGATTGTC AACAAATTGGG AAGCAGCTAA GGATTGTC CAAACGCATG
361 ATAAGGACTT CGCTGCCGA CCAACTTCTA TGGCTGGTGA AAGCATCGGG TACAAGTATG
421 CGAGGTTTAC TTATGCTAAT TTTGGCTCTT ATTAAACCA AGTGGCCAAA CTAGCCCTAC
481 AACATGTAAC CTCGAGTACT AAACTCGAGA AAATGAAACAA CATACTGTT TCTGAATTGG
541 AAACTAGCAT CAAAGAATTA TATTCTTTGA CGCTGGCAA AAAAACATG CAAAAGTGA
601 ATATAAGTAA ATGGTTTGAA CAATTGACTT TAAACATAAT CGTGAAGACA ATTTGTTGCA
661 AGAGATATAG CAACATAGAG GAGGATGAAG AGGCACAACG TTTCAAGAAAG GCATTAAAGG
721 GCATCATGTT TGGTGTAGGG CAAATTGTTT TATATGACCC AATTCCATTC CCATTGTTCA
781 AATACTTTG AATTCAGGAT CATAACAAAT TGATGAACAA AATTTATAAA GACTTAGATT
841 CTATTCTCA AGGATGGTTG GATGATCATA TGATGAACAA GGATGTAAC AATAAGGATC
901 AAGATGCCAT AGATGCCATG CTTAAGGTTA CACAACITAA TGAATTCAA GCCTATGGTT
961 TTTCTCAGGC CACTGTGATC AAGTCGACAG TCTTGAGTTT GATCTTAGAT GGAAATGACA
1021 CAACCGCTGT TCATTGATA TGGGTAATGT CCTTATTACT GAACAACTCCA CATGTTATGA
1081 AACAAAGGCCA AGAAAGAGATA GACATGAAAG TGGGTAAGAAG GAGGTGGATT GAAGATACTG
1141 ACATAAAAAAA TTTAGTGAC CTTCAAGGCTA TGCTTAAAGA GACATTGCGC TTGTTATCCAC
1201 CTGTCCTTT TCTTTTACCA CACGAAGCAG TGCAAGATTC TAAAGTGACT GGTTACCACA
1261 TTCCTAAAGG TACTCGTCTA TATATCAATG CGTGGAAAGT ACATCGCGAT CCTGAAATTT
1321 GGTCAAGAGCC CGAAAAGTTT ATGCCAATA GATTCTTGAC TAGCAAAGCA AATATAAGATG
1381 CTCGCGGTCA AAATTTGAA TTATACCGT TTGGTTCTGAG GAGACGGTCA TGTCAGGGGA
1441 TAGGTTTGCA GACTTGTAGT ACACATCTGA CTTTGGTCG CTTGCTCAA GGTTTGATT
1501 TTAGTAAGCC ATCAACACCG CCAATTGACA TGACAGAAGG CGTAGGCCTT ACTTTGCCCTA
1561 AGGTAAATCA AGTTGAAGTT CTAATTACCC CTCGTTTACCT TTCTAAGCTT TATTTATTTT
1621 GAAAGTGCCTA ATCATCAATC ATGGCTTGAG TAATTAGTTA TACTTTAATA TGTTCTC

SEQ. ID. NO. 250

1 MDYHISFHQ ALLGLLAFVF LSIILWRRRL TSRKLAPEIP GAWPIIGHLR QLSGTDKNIP
61 FPRILGALAD KYGPVFTLRI GMYPYLIVNN WEAAKDCLTT HDKDFAARPT SMAGESIGYK
121 YARFTYANFG PYYNQVRKLA LQHVPSSSTKL EKMKHIRVSE LETSIKELYI LTGKNNMQK
181 VNISKWFEQL TLNIIVKTIC GKRYSNIEED EEAQRFRKAF KGIMFVVGQI VLYDAIPFPL
241 FKYFDQGHQ QLMNKIYKDL DSILQGWLDD HMMNKDVNNK DQDAIDAMLK VTQLEEFKAY
301 GFSQATVIKS TVLSSLILDGN DTAVHLIWV MSLLLNNPHV MKQGQEEIDM KVGKERWIED
361 TDIKNLVYLO AIVKETLRLY PPVPFLLPHE AVQDCKVTGY HIPKGTRLYI NAWKVHRDPE
421 IWSEPEKFMP NRFLTSKANI DARGQNFFFI PFGSGRRSCP GIGFATLVTN LTFGRLQGF
481 DFSKPSNTPI DMTEGVGVTL PKVNQVEVL F

FIG. 126

NAME D247-AH1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 251

1 TGATAATGCT CTTTCTACTC TTTGTAGCCC TTCCCTTCAT TCTTATTTCAT CTTCTCCCTA
61 AATTCAAAA TGGTGGAAAT AACAGATTGC CACCAGGTCC TATAGGTTA CCATTCAATG
121 GAAATTGCA TCAATATGAT AGTATAACTC CTCATATCTA TTTTGAACTTAA CTTTCCAAAA
181 AATATGCCA AATCTCTCA TAAACACTTG CTTCTACTAA TGTGGTAGTA GTTCTTCAG
241 CAAAATAGC AAAAGAACGA TTGAAAAAAC AGATTTAAT ATTTTGTAGT AGACCATCTA
301 TTCTGGCCA ACAAAATCG TCTTATTATG GTCGTGATAT TGCTTTGCA CCTTATAATG
361 ATTATTGGAG AGAAATGAGA AAAATTGTC TTCTTCATCT TTTTAGTTA AAAAAAGTTC
421 AATTATTAG TCCAATTCTG GAAGATGAAG TTTTAAAT GATTAAGAAA ATATCAAC
481 AAGCTTCTAC TTCACAAATT ATTAAATTGTA GTAATTAAAT GATTCATTA ACAAGTCAA
541 TTATTGTAAGTGTGTTT GTGTTAGGT TGAAAGAAGA AGCACATGCA AGGAAGAGAT
601 TTGATTCTCT TTTGGCCGAG GCACAAAGAAA TGATGGCTAG TTTCTTGTA TCTGATTTC
661 TTCCCTTTTAAAGTGGATT GATAAATTAA GTGGATTGAC ATATAGACTT GAGAGGAATT
721 TCAAGGATTG GGATAAATTAA TATGAAGAAC TCATTGAGCA ACATCAAAT CCTAATAAGC
781 CAAAATATG GGAAGGAGAT ATTGTTGATC TTTTGCTACA ATTGAAGAAA GAGAAATTAA
841 CACCACTGAGTCTCACTATG GAAGATATAA AGGAATTCT CATGAATGTG TTAGTTGCAG
901 GATCAGACAC TAGTGCAGCT GCTACTGTTT GGGCAATGAC AGCCTTGATA AAGAATCCTA
961 AAGCCATGGA AAAAGTCAA TTAGAATCA GAAAATCAGT TGGGAAGAAA GGCATTGTA
1021 ATGAAGAAGA TGTCCAAAAT ATCCCTTATT TAAAGCACT GATAAAAGGAA ATATTAGAT
1081 TGATTCACCAGCTTCACTT TTAGTTCCAA GAGAATCAAT GAAAAAAACC ATATTAGAAG
1141 GTTATGAAAT CGGGCAAGA ACCATAGTTC ATGTTAACCG TTGGCTATA GCAAGGGATC
1201 CTGAAATATG GAAAATCCA GATGAAATTAA TACCTGAGAG ATTTTGAAT AGCAGTACCG
1261 ATTACAAGGG TCAAGATTTT GAGTTACTTC CATTGGTGC AGGCAGAAGA GGTGCCCCAG
1321 GTATTGCACT TGGGGTTGCA TCCATGGAAC TTGCTTGTC AAATCTTCTT TATGCATTG
1381 ATTGGGAGTT GCCTATGGA GTGAAAAAAG AAGACATGCA CACAAACGTT AGGCCTGGAA
1441 TTGCATGCA CAAGAAAAAC GAACTTGCC TTGCCCCAAA AAATTATTA TAAATTATAT
1501 TGGGACGTGG ATCTCAATT AGTTCTGTGA GGTCAAG

SEQ. ID. NO. 252

1 MLFLLFVALP FILIFLLPKF KNNGNNRLPP GPIGLPFIGN LHQYDSITPH IYFWKLSKKY
61 GKIFSILKLAS TNVVVVSAAK LAKEVLLKQD LIFCSRPSIL GQQLSYYGR DIAFAPYNDY
121 WREMRKICVL HLFSLKKVQL FSPIREDEVF RMIIKKISKQA STSQIINISN LMISLTSTII
181 CRVAFGVRFEEAHARKRFD FLAEEAQEMM ASFFFVSDFFP FLSWIDKLSG LTYRLERNFK
241 DLDFNFYEELI EQHQNPNKPK YMEGDIVDILL LQLKKEKLTP LDLTMDIKG ILMNVLVAGS
301 DTSAAATWMA MTALIKNPKA MEKVQLEIRK SVGKKGIVNE EDVQNIPYFK AVIKEIFRLY
361 PPAPLIVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPFE IWENPDEFIP ERFLNSTDY
421 KGQDFELLPF GAGRRCGPGI ALGVASMELA LSNLLYAFDW ELPYGVKKED IDTNVRPGIA
481 MHKKNELCLV PKNYL

FIG. 127

NAME D248-AA6
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 253

1 CCAAAATCAT GGCTCTATCT TTCATATTCA TATCCATAAC CCTAATTTTT CTAGTTCATA
61 AACTCTACCA CCGCTTCTAGA TTCAAACATC CACCAGGTCC GCGGCCGTTA CGGGTGGTCG
121 GAAACCTCTA CGACATAAAA CCGGTGAGAT TCCGGTGCCT TGCGGATTGG GCCAAAACCT
181 ACGGTCCGAT TTTCTCAGTA TACTTTGGGT CACAGTTAAA TGTGTTGGTA ACAACAGCTG
241 AATTAGCTAA AGAAGTATTG AAAGAAAATG ACCAGAATTG AGCAGATAGA TTTAGGACTA
301 GACCTGCAA TAATTGAGC AGAAATGGGA TGGATTGAT TTGGGCTGAT TATGGGCCTC
361 ATTATGTGAA AGTAAGGAAG CTCGTAAATC TTGAGCTTT TACTCCTAAA AGACTTGAAG
421 CTCTTAGACC TATTAGAGAA GATGAAGTTA CTGCTATGGT TGAAAACATT TTCAAGGATT
481 GTACTAAGCC TGATAACACA GGTAAGGCT TGTTGATAAG AGAGTACTTA GGATCAGTAG
541 CATTCAACAA CATTACAAGG TAAACATTG GAAAAGGGT CATGAACCTA AAAGGTGAGA
601 TTGATGAGCA AGGTCAAGAA TTCAAGGGTA TTGTCCTAA TGGCATCAA ATTGGCGGAA
661 AACCTCCCTT GGCAGAGTAT GTTCCATGGC TCCGTTGGTT TTTCACAATG GAAAACGAGG
721 CACTCGTGA GCACCTCTGCA CGTAGAGACC GTTAAACAG AATGATCATG GATGAACACA
781 CACTGGCTCG CAAGAAAAGT GTGTGATACTA AGCAGCATTG TGTCGATGCA TTGCTTACTC
841 TTCAGAACAG GTATGATCTT AGTGATGACA CTGTTATTGG CCTCTCTGG GATATGATTA
901 CAGCAGGAAT GGACACAAAC ACCATAACAG TGGAAATGGGC AATGGCAGAA CTAGTTAAGA
961 ACCCAAGAGT GCAACTAAAA GCTCAAGAGG AGCTTGACAG GTTAATCGGA ACGGATCGAA
1021 TCATGTCAGA AACCGATTTC TCTAAACTTC TTACCTACA ATGTTGAGCC AAAGAGGCTC
1081 TAAGGTGCA CCCTCCAACCT CCTCTAATGC TTCCCTCATAA GGCCAGTGCC AGTGTCAAAA
1141 TTGGTGGTTA TGACATTCTT AAGGGGTTCA TCGTGCACGT GAACGTTGG GCTGTCGCTC
1201 GTGACCCAGC CGTGTGGAAAG AACCCGTTGG AGTTCAGACC AGAGCGCTTC CTTGAGGAAG
1261 ACGTTGACAT GAAGGGTCAC GACTATCGGT TATTGCCCTT TGGTGCAGGA AGGCGTGT
1321 GCCCCGGTGC ACAACTTGAT ATCAACTTGG TACACATCAT GTTGGGTCAT TTGTTGCATC
1381 ATTTTACATG GGCTCCGGCC CCGGGGGTTA ACCCGGAGGA TATTGACTTG GAGGAGGCC
1441 CTGGAACAGT AACTTACATG AAAAATCCAA TACAAGCTAT TCCAACCTCA AGATTGCTG
1501 CACACTTGTA TGGACGTGTG CCAGTGGATA TGAAAACAT TTGTTCTTT CCCTTTTGG
1561 TTATATGATG AG

SEQ. ID. NO. 254

1 MALSFIFISI TLIFLVHKLY HRLRFKLPPG PRPLPVVGNL YDIKPVRFR FADWAKTYGP
61 IFSVYFGSQL NVVVVTAELA KEVLKENDQN LADRFRTRPA NNLSRNGMDL IWADYGHYV
121 KVRKLCNLEL FTPKRLEALR PIREDEVITAM VENIFKDCTK PDNTGKSILLI REYLGSVAFN
181 NITRITFGKR FMNSKGEIDE QQQEFGKIVS NGIKIGGKLP LAEYVPWLW FFTMENEALV
241 KHSARRDRLT RMIMDEHTLA RKKTGDTKQH FVDALLTLQK QYDLSDDTVI GLLWDMITAG
301 MDTTTITVEW AMAELVKNPR VOLKAQEELD RVIGTDRIMS ETDFSKLPYL QCVAKEALRL
361 HPPTPLMLPH KASASVKIGG YDIPKGSIHV VNVWAVARDP AVWKNPFLFR PERFLLEPDV
421 MKGHDYRLLP FGAGRRVCVG AQLAINLVTS MLGHLLHHFT WAPAPGVNPE DIDLEESPGT
481 VTYMKNPIQA IPTPRLPAHL YGRVPVDM

FIG. 128

NAME D249-AE8
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 255

1 AATCACTAAT TTTCATGTAC TCTCATAGGT CAAAAGTTTC AACCAAATC ATGGCTCTAT
61 CCTTCATATT CATATCCATA ACCCTAATT TTCTAGTTCA TAAACTCTAC CACCGTCTTA
121 GATTCAAAC ACCACCAAGGT CGCGGGCGT TACCGGTGGT CGGAAACCTC TACGACATAG
181 AACCGGTGAG ATTCCGGTGC TTTCCGATT GGGCAAAAC TTACGGTCCG ATTTTCTCAG
241 TATACTTGG GTCACAGTTA AATGTTGTGG TAACAACAGC TGAATTAGCT AAAGAAGTAT
301 TGAAAGAAAA TGACCAGAAAT TTAGCAGATA GATTTAGGAC TAGACCTGCA AATAATTGA
361 GCAGAAATGG GATGGATTG ATTGGGGCTG ATTATGGGCC TCATTATGTG AAAGTAAGGA
421 AGCTCTGAA TCTTGAGCTT TTACTCCTA AAAGACTTGA AGCTCTTAGA CCTATTAGAG
481 AAGATGAAGT TACTGCTATG GTTGGAAAACA TTTCAAGGA TTGFACTAAG CCTGATAACA
541 CAGGTAAGAG CTTGGTATA AGAGAGTACT TAGGATCAGT AGCATTCAAC AACATTACAA
601 GGTTAACATT TGGGAAAAGG TTCATGAACT CAAAAGGTGA GATTGATGAG CAAGGTCAG
661 AATTCAAGGG TATTGTCCTCT AATGGCATCA AAATTGGCGG AAAACTTCCC TTGGCAGAGT
721 ATGTTCCATG GCTCCGGTGG TTTTCACAA TGAAAACCGA GGCACTCGTG AAGCACTCTG
781 CACGTAGAGA CGGGTTAACAGA AGATGATCA TGGATGAACA CACACTGGCT CGCAAGAAAA
841 CTGGTGTATC TAAGCAGCAT TTTGTCGATG CATTGCTTAC TCTTCAGAAG CAGTATGATC
901 TTAGTGATGA CACTGTTATT GGCCCTCTC GGGATATGAT TACAGCAGGA ATGGACACAA
961 CAACCATAAC AGTGGATGG GCAATGGCAG AACTAGTTAA GAACCCAAGA GTGCAACTAA
1021 AAGCTCAAGA GGAGCTTGAC AGGTAATCG GAACGGATCG AATCATGTCA GAAACCGATT
1081 TCTCTAACT TCCTTACCTA CAATGTGTAG CAAAGAGGC TCTAAAGGTG CACCCCTCCAA
1141 CTCTCTAAAT GCTTCCCTCAT AGGGCCAGTG CCAGTGTCAA ATTGGTGGT TATGACATT
1201 CTAAGGGGTC CATCGTGCAC GTGAACTTT GGGCTGTCGC TCGTACCCA GCCGTGTGGA
1261 AGAACCCGTT GGAGTTCAAGA CCAGAGCAGCT TCCTTGAGGA AGACCTTGAC ATGAAGGGTC
1321 ACGACTATCG GTTATTGGCC TTGGTGCAG GAAGGGCTGT TTGCCCCGGT GCACAACTTG
1381 CTATCAACTT GGTACATCT ATGGTGGTC ATTGTGTGCA TCATTTACA TGGGCTCCGG
1441 CCCCGGGGGT TAACCCGGAG GATATTGACT TGGAGGAGAG CCCTGAAACA GTAACCTACA
1501 TGAAAAATCC AATACAAGCT ATTCCAACTC CAAGATTGCC TGCACACTTG TATGGACGTG
1561 TGCCAGTGGA TATGTAAAAC

SEQ. ID. NO. 256

1 MYSHRSKVST KIMALSFIFI SITLIFLVHK LYHRLRFKLP PGPRPLPVVG NLYDIEPVRF
61 RCFADWAKTY GPIFSVYFGS QLNVVTTAE LAKEVLKEND QNLADRFRTR PANNLSRNGM
121 DLIWADYGPH YVKVRKLCNL ELFPTKRLEA LRPIREDEVT AMVENIFKDC TKPDNTGKSL
181 LIREYLGSA FNNITRLTFG KRFMNSKGDI DEQGQEFKGI VSNGIKIGK LPLAEYVPWL
241 RWFFTMESEA LVKHSARRDR LTRMIMDEHT LARKKTGDTK QHFVDALLTL QKQYDLSDDT
301 VIGLLWDMIT AGMDTTITV EWAMAEVLVN PRVQLKAQEE LDRVIGTDRI MSETDFSKLP
361 YLQCVAKEAL RLHPPTPLML PHRASASVKI GGYDIPKGSI VHVNVAVAR DPAWKNPLE
421 FRPERFLEED VDMKGHDYRL LPFGAGRVC PGAQLAINLV TSMLGHLLHH FTWAPAPGVN
481 PEDIDLEESP GTVITYMKNPI QAIPTPRLPA HLYGRVPDM

FIG. 129

NAME D250-AC11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 257

1 ATAATGCTCT TTCTACTCTT TGAGCCCTT CCTTCATTC TTATTTTCT TCTTCCTAAA
61 TTCAAAAATG GTGGAATAA CAGATTGCCA CCAGGTCTA TAGGTTTAC ATTCAATTGGA
121 AATTCGATC AATATGATAG TATAACTCCT CATATCTATT TTTGGAAACT TTCCAAAAAA
181 TATGGCAAA TCTTCTCATT AAAACTTGCT TCTACTAATG TGGTAGTAGT TTCTTCAGCA
241 AAATTAGCAA AAGAAGTATT GAAAAAACAA GATTTAATAT TTTGAGTAG ACCATCTATT
301 CTTGGCCAAC AAAAAGTGC TTATTATGGT CGTGATATTG CTTTGCACC TTATAATGAT
361 TATTGGAGAG AAATGAGAAA AATTGGTGTGTT CTTCATCTTT TTAGTTAAA AAAAGTCAA
421 TTATTTAGTC CAATTGTA AGATGAAGTT TTAGAATGA TTAAGAAAAT ATCAAAACAA
481 GCTTCTACTT CACAATTAT TAATTGAGT AATTTAATGA TTTCATTAAAC AAGTACAATT
541 ATTTGAGAG TTGCTTTGG TTGTTAGGTTT GAAGAAGAAG CACATGCAAG GAAGAGATT
601 GATTTCTTT TGGCCGAGGC ACAAGAAATG ATGGCTAGTT TCTTTGTATC TGATTTTTT
661 CCCTTTTAA GTTAGATTGA CAAATTAAGT GGATTGACAT ATAGACTTGA GAGGAATTTC
721 AAGGTTGG ATAATTTTA TGAAGAACTC ATTGAGCAAC ATCAAATCC TAATAAGCCA
781 AAATATATGG AAGGAGATAT TTGTTGATCTT TTGCTACAAAT TGAAGAAAAGA GAAATTAACA
841 CCACTTGATC TCACTATGGA AGATATAAA GGAATTCTCA TGAATGTGTT AGTTGCAGGA
901 TCAGACACTA GTGCAGCTGC TACTGTTGG GCAATGACAG CCTTGATAAA. GAATCCTAAA
961 GCCATGGAAA AAGTCAATT AGAAATCAGA AAATCAGTT GGAAGAAGG CATTGTAAT
1021 GAAGAAGATG TCCAAACAT CCCTTATTTT AAAGCAGTGA TAAAGGAAAT ATTTAGATT
1081 TATCCCCAG CTCCACTTTT AGTTCCAAGA GAATCAATGG AAAAACCAT ATTAGAAGGT
1141 TATGAAATTG GGCAAGAAC CATACTTCACTT GTTAACGCTT GGGCTATAGC AAGGGATCCT
1201 GAAATATGGG AAAATCCAGA TGAATTTATA CCTGAGAGAT TTTTGAATAG CAGTATCGAT
1261 TACAAGGGTC AAGATTGTA GTTACTTCCA TTGGTGCAG GCAGAAGAGG TTGCCAGGT
1321 ATTGCACTTG GGGTGCATC CATGGAACTT GCTTGTCAA ATCTTCTTTA TGCATTGAT
1381 TGGAGTTGC CTTATGGAGT GAAAAAGAA GACATCGACA CAAACGTTAG GCCTGGAATT
1441 GCCATGCACA AGAAAACGA ACTTTGCCTT GTCCCAAAAA AATTATTTAT AAATTATATT
1501 GGACGTGGA TCTCATGCTA GTTCTGTGCG GTCAGCTAAG CTTA

SEQ. ID. NO. 258

1 MLFLFFVALP FILIFLLPKF KNGGNNRLPP GPIGLPFIGN LHOYDSITPH IYFWKLSKKY
61 GKIFSILKLAS TNVVVVSAAK LAKEVLKKQD LIFCSRPSIL GQOKLSYYGR DIAFAPYNDY
121 WREMRKICVL HFLSLKKVQL FSPPIREDEVF RMIKKISKQA STSQIINLSN LMISLTSTII
181 CRVAFGVRFE EEAHARKRFD FLILAEQEMM ASFFVSDFFF FLS.IDKLSG LTYRLERNFK
241 DLDFNFEELI EQHQNPNKPK YMEGDIVDLL LQLKKEKLTP LDLMEDIKG ILMNVLVAGS
301 DTSAATVWA MTAIIKNPKA MEKVQLEIRK SVGKKGIVNE EDVONIPYFK AVIKEFFRLY
361 PPAPLLVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPE IWENPDEFIP ERFLNSSIDY
421 KGQDFELLPF GAGRRCGPGI ALGVASMELA LSNLLYAFDW ELPYGVKKED IDTNVRPGIA
481 MHKKNELCLV PKKLFINYIG TWISC

FIG. 130

NAME D259-AB9
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 259

1 CACATTGAGT CCTCTCCCAA ATCACTGATT CACCACCAAA AGTACCAACA ATTCAATGGA
61 AGGTACAAAC TTGACTACAT ATGCAGCAGT ATTTCTTGAT ACTCTGTTTC TTTTGTTCCT
121 TTCCAAACTT CTCGCCAGA GGAAACTCAA TTTACCTCCA GGCCCAAAAC CATGGCCGAT
181 CATCGGAAAC TTAAACCTTA TTGGAATCT TCCTCATCGC TCAATCCACG AACTCTCCCT
241 CAAGTCAGGA CCCGTTATGC AACTCCAATT CGGGTCTTTC CCCGTTGTAG TTGGATCCTC
301 CGTCGAATG GCTAAGATT TCCTCAAATC CATGGATATT AACTTTGTAG GCAGGCCCAA
361 AACGGCTGCC GGAAAATACA CAACTACAA TTATTCCGAT ATTACATGGT CTCCCTACGG
421 ACCATATTGG CGCCAGGCAC GTAGGATGTG CCTAACGGAA TTATTCAGCA CGAACAGTCT
481 CGATTCATAC GAGTATATTG GGGCTGAGGA GTTGCATTCT CTTCTCCATA ATTTGAACAA
541 AATATCAGGG AAACCAATTG TTGTAAGAGA TTATTTGAGC ACGTTGAGTT TAAATGTTAT
601 TAGCAGGATG GTACTGGGG AAAAGGTATT GGACGAATCC GAGAACCTGT TCGTGAATCC
661 TGAGGAATTG AAGAAGATGT TGAGCAATTG GTTTTGCTA AATGGTGTAC TTAATATTGG
721 AGATTCAATT CCATGGATTG ATTTCATGGA TTTGCAAGGT TATGTTAAGA GGATGAAAGT
781 AGTGAGCAAG AAATTGACA AGTTTTTAGA GCATGTTATT GATGAGGATA ACATTAGGAG
841 AAATGGAGTG GAGAATTATG TTGCTAAGGA TATGGTGGAT GTTGTGTC AGCTTGTGA
901 TGATCCGAAG TTGGAAGTTA AGCTGGAGAG ACATGGAGTC AAAGCATTCA CTCAGGATAT
961 GCTGCTGGT GGAAACCGAGA GTTCAGCAGT GAGACTGGAG TGGGCAATT CAGAGCTGCT
1021 AAAGAACCG GAGATTTCA AAAAGGCTAC AGAAGAATTG GATCGAGTAA TTGGGAGAA
1081 TAGATGGGTA CAAGAAAAGG ACATTCAAAATCCTCCCTAC ATAGAGGCAA TAGTCAAAGA
1141 GACTATGCGA CTGCAACCCCG TGGCACCAAT GTTGGTGCCTA CGTGAGTGT GAGAAGATAT
1201 TAAGTAGCA GGCTACGAGC TTCAAGAAAGG AACTAGGGTT CTCGTAGTG TATGGATAT
1261 TGGAAAGAGAC CCTACATTGT GGGACGAGCC TGAGGTGTTA AAGCCGGAGA GATTCCATGA
1321 AAAGTCATA GATGTTAAAG GACATGATTA TGAGCTTTG CCATTTGGAG CGGGGAGAAG
1381 AATGTGCCCG GTTTATAGCT TGGGGCTCAA GTGATTCAA GCTAGCTTAG CTAATCTCT
1441 ACATGGATTG AACTGGTCA TGGCTGATAA TATGACTCCT GAGGACCTCA ACATGGATGA
1501 GATTTTGGG CTCTCTACAC CTAAAAATT TCCACTGCT ACTGTGATG AGCCAAAGCT
1561 TTCACCAAAA CTTTACTCTG TTGATTCAAG CAGTTCTATG GTTCCGTCAA GATAG

SEQ. ID. NO. 260

1 MEGTNLTTYA AVFLDTLFLL FLSKLLRQPK LNLPPGPKPW PIIGNLNLIQ NLPHRSIHEL
61 SLYKGPMQL QFGSFPVVVG SSVEMAKIFL KSMIDINFVGR PKTAAGKYTT YNYSDTWSP
121 YGPYWRQARR MCLTELFSTK RLDSYEYIRA EELHSLLHNL NKISGKPIVL KDYLTTLSN
181 VISRMVLGKR YLDESENSFV NPEEFKKMLD ELFLLNGVLM IGDSIPWIDF MDLQGYVKRM
241 KVVSKKFDKF LEHVIDEHNII RRNGVENYVA KDMVDVLLQL ADDPKLEVKL ERHGVKAFTQ
301 DMLAGGTESS AVTVEWAISE LLKKPEIFKK ATEELDRVIG QNRWVQEKDI PNLPYIEAIV
361 KETMRLHPVA PMLVPRECRE DIKVAGYDVQ KGTRVLVSVW TIGRDPTIWD EPEVFKPERF
421 HEKSIDVKGH DYELLPGFAG RRMCPGYSLG LKVIQASLAN LLHGFNWSLP DNMTPEDLNM
481 DEIFGLSTPK KFPLATVIEP RLSPKLYSV

FIG. 131

NAME D218A-AC2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 261

1 CTTCTTCCCTT CCTAACTAAA AATGGAGATT CAGTTTTCTA ACTTAGTTCG ATTCCTTGCTC
61 TTTCTCTCCA GCATCTTTCT TGTTTCAAA AAATGGAAAA CCAGAAAACT AAATTTGCCT
121 CCTGGTCCAT GGAAATTACC TTTTATTGGA AGTTTACACC ATTTGGCTGT GGCAAGTCCA
181 CTTCCCTCACC ATGGCCTAAA AAATTTAGCC AACCGCTATG GTCCCTCTAT GCATTTACAA
241 CTTGGACAAA TTCCTACACT CGTCATATCA TCACCTCAAA TGGCAAAAGA AGTACTAAAA
301 ACTCAGCAGCC TCGCTTTGCA CACTAGACCA AAGCTTGTGCG TGGCCGACAT CATTCACTAC
361 GACAGCACGG ACATAGCACT TTGCCCATAC GGTGAATACT GGAGACAATT TCGTAAAATT
421 TGCATATTGG AACTCTTGAG TGCCAAGATG GTCAAGTTT TTAGCTCGAT TCGCCAAGAT
481 GAGCTCTCGA AGATGGTTTC ATCTATACGA ACGACGCCA ATCTTCCAGT CAATCTTAC
541 GACAAGATTT TTTGGTTTAC GAGTCGGTA ATTGTAGAT CAGCTTTAGG GAAGATATGT
601 GGTGACCAAG ACAAAATTGAT CATTTTTATG AGGGAAATAA TATCATTGGC AGGTGGATT
661 AGTATTGCTG ATTTTTCCC TACATGGAAA ATGATTATCG ATATTGATGG TTCAAATCT
721 AAACTGGTGA AGGCACATCG TAAGATTGAT GAAATTTGG AAAATGTGGT AAAATGAGCAC
781 AAAACAGAACATC GAGCAGATGG TAAAAAGGGT AATGGTGAAT TTGGTGGAGA AGATCTGATT
841 GATGTTTGT TAAGAGTTAG AGAAAAGTGG AAGATTCAAA TTCCAATCAC AGATGACAAT
901 ATCAAATCAA TATTAATCGA CATGTTCTCT GCCGGATCGG AAACATCATC GACAACATATA
961 ATTTGGGCAT TAGCTGAAAT GATGAAGAAA CCAAGTGTGTT TAGCAAAGGC ACAAGTGAA
1021 GTGAGCCAAG CTTTGAAGGG GAAGAAAATT AGTTTCAAG AGATTGTAT TGATAAGCTA
1081 AAGTATTGAG AGTTAGTGT CAAAGAAAATC TTAAGAATGC ACCCTCCAAT TCCTCTGTTA
1141 GTCCCTAGAG AATGTATGGAG AGATAACAAAG ATTGATGGTT ACAATATACC TTTCAAAACA
1201 AGAGTCATTG TTAATGCATG GGCATTGGGA CGAGATCTC AAAGTTGGGA TGATCTGAA
1261 AGCTTTACGC CAGAGAGATT TGAGAATATAAT TCTATTGATT TTCTTGGAAA TCATCATCAA
1321 TTATTCAT TTGGTGCAGG AAGAAGGATT TGTCATTGTT GGCTATTGTT TTTAGCTAAAT
1381 GTTGGACAAC CTTTAGCTCA GTTACTTTAT CACTTCGATT GGAAACTCCC TAATGGACAA
1441 ACTCACCAAA ATTCGACAT GACTGAGTC CCTGGAATTCTGCTACAAG AAAGGATGAT
1501 CTTATTTGAG TTGCACTCC TGCTCATTC TGATTAAGTA TTGCTGCTTT TCTATTGGAG
1561 AATTTCAAA ATTCAATCCAC AATATATAGT GTTTGCTAGA GTTGGTTAGC

SEQ. ID. NO. 262

1 MEIQFSNLVA FLLFLSSIPL VFKKWKTRKL NLPPGPWKLPI FIGSLHHILAV AGPLPHHGLK
61 NLAKRYGPLM HLQLGQIPTL VISSPQMAKE VLKTHDLAFA TRPKLVVADI IHYDSTDIAL
121 SPYGEYWRQI RKICILELLS AKMVKFSSSI RQDELSKMVS SIRTPNLPV NLTDKIFWFT
181 SSVICRSLAG KICGDQDKLI IFMREIIISLA GGFSIADFFF TWKMIHDIDG SKSKLVKahr
241 KIDEILENVV NEHKQNRADG KKGNGEFGGE DLIDVLLRVR ESGEVQIPIT DDNIKSILID
301 MFSAGSETSS TTIIWALAEAM MKKPSVLAKA QAEVSQALKG KKISFQEIDI DKLKYKLVI
361 KETLRMHPPPLLVPRECME DTKIDGYNIP FKTRVIVNAW AIGRDPQSVD DPESFTPERF
421 ENNSIDFLGN HHQFIPFGAG RRICPGMLFG LANVGQPLAQ LLYHFDWKLP NGQTHQNFDM
481 TESPGISATRKDDLILIATP AHS

FIG. 132

NAME D210-BD4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 263

1 CTTTCATCAT ATGGCATGAA ATGGGAAATG CTCACAACAG CAAAATTGCA GCAATCTGTT
61 TGATAATTTT CTTGGTATAT AAAGCATGGG AATTGTTGAA GTGGATATGG ATTAAGCCAA
121 AGAAACTGGA GAGTGCCCTC AGAAAACAGG GACTCAAAGG AAATTCCTAC GGGCTATTCT
181 ATGGAGATAT GAAAAGATTG TCCAAAAGTC TCAAGGAAT CAATTCAAAG CCCATCATCA
241 ATCTATCAA TGAAAGTAGCC CCAAGAATCA TTCTTATTA TCTTGAAATC ATCCAAAAT
301 ATGGTAAAG ATGTTTTGTT TGCGAAGGAC CAACCCCCGC AATATTATA ACAGAGCCAG
361 AATTAATAAA GGAGATATTG GTGAGAAACT ATGTTTTCA GAAGCTTAAT AATCCAACC
421 CACTGACCAA GTTATTGGCT CGAGGTGTTG TAAGCTACGA GGAAGAAAAA TGGGCAAAAC
481 ACAGAAAAGT CTAAATCCT GCCTTCATA TGGAGAAATTG GAAGCATATG CTACCAAGCAT
541 TTTACTGTAG CGTAGTGTAG ATGCTGAACA AATGGGGAGGA GATTATCCA GTAAAAGAAT
601 CAAATGAGTT GGACATTGG CCTCATCTTC AAAGAATGAC AAGTGATGTG ATTTCTCGTG
661 CTGCCTTGG TAGTAGCTAC GAAGAAGGAA GAAGAATATT TGAACCTCAA GAAGAACAAAG
721 CTGACTATCT AACGAAGACA TTCAATTCTAG TTTATATCCC AGGTTCCAGA TTTTTTCCCA
781 ATAAATGAA CAAAAGAATG AAAAGATGTG AAAAGGAAGT ACGAGAAACA ATTACGTGTC
841 TAATTGACAA CAGATTAAG GCAAAAGTGA CGAACATGG CAAGGCCCTC AATGATGACC
901 TATTGGGTAT ATTATTAGAG TCAAATTCTA TAGAAATTGA AGAACATGGT ACAAGAAAGT
961 TTGGAATGAG TATACTGAA GTAATTGAAG AGTGCATT ATTCTATTGTT GCTGCCAAG
1021 AGACTACATC AGTATTGCTT GTGTGGACAC TGATTTGTT AGGGAGAAAT CCAGAACATGGC
1081 AGGAACGTGC TAGAGAGGAA GTTTTCAAG CCTTGGAG TGATAAACCA ACTTTGACG
1141 AATTATATCG CTGAAATTG TGAGCATGTA TTTTGACAGA GTCTTTAAGG TTATATCCAC
1201 CAATACCAAC TCCTACTCGA AGGACTAATG AAGAAACAAA ATTAGGGAA CTAGATTAC
1261 CAAAGGGTGC ACTGCTTTT ATACCAACAA TCTTATTACA TCTTGACAGG GAAATTGGG
1321 GTGAAGATGC AGATGAGTTT AAATCCGGAGA GATTAGCGA AGGGGTGGCA AAGGCAACAA
1381 AGGGGAAATG GACATATTTC CCATTGGGTG CAGGACCGCG AAAATGCATT GGGCAAAACT
1441 TCGCGATTG GGAGCAAAA ATGGCTATAG CTATGATTCT ACAACGCTTC TCCTTCGAGC
1501 TCTCTCATC TTATACACAC TCTCCATACA CTGTTGTCAC TTGAAACCC AAATATGGTG
1561 CTCCCCTAAT AATGCACAGG CTGAGTCCT GTGAGAATAT GCTATCCGAG G

SEQ. ID. NO. 264

1 MGNNAHNSKIA AICLIIFLVY KAWELLKWIW IKPKKLESCL RKOGLKGNSY GLFYGDMKEL
61 SKSLKEINSK PIINLSNEVA PRIIPYYLEI IQKYGKRCFV WQGPTPAILI TEPELIKEIF
121 GKNYVFQKPN NPPLTKLLA RGVVSYEEEK WAKHRKILNP AFHMEKLKHM LPAFYLSCSE
181 MLNKWEEIIP VKESNELDIW PHLQRMTSDV ISRAEFGSSY EEEGRRIIFELQ EEQAEYLTKT
241 FNSVYIPGSR FFPNKMKNRM KECEKEVRET ITCLIDNRLK AKEEGNGKAL NDDLLGILLE
301 SNSIEEEHG NKKFGMSIPE VIEECKLFYF AGQETTSVLL VWTLLILLGRN PEWQERAREE
361 VFQAFGSDKP TFDELYRLKI VTMILYERSR LYPPPIATRTR RTNEETKLGE LDLPKGALLF
421 IPTILLHLDL EIWGEDADEF NPERFSEGVA KATKGKMTYF PFGAGPRKCI GQNFAILEAK
481 MAIAMILQRF SFELSPSYTH SPYTVVTLKP KYGAPLIMHR L

FIG. 133

NAME D233-AG7
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 265

1 CTCATTATCC ATCACCTAAA ATGGAGAATT CTTGGGTTT TCTAGCCTTG GCAGGGCTAT
61 CTGCATTAGC TTTTCTCTGT AAAATAATCA CCTGTCGAAG ACCGGTTAAC CGGAAAATAC
121 CACCAGGTCC AAAACCATGG CCCATCATCG GCAATTGAA CCTACTTGGT CCTATACAC
181 ATCAATCTTT TGACTGCTT TCCAAAAAAT ATGGAGAGTT GATGCTGCTG AAATTTGGCT
241 CCAGGCCAGT TCTTGTGCT TCATCTGCTG AAATGGAAA ACAGTTTTA AAAGTACATG
301 ATGCTAATT CGCCTCCCGT CCTATGCTAG CTGGTGGAAA GTATACAAGC TATAACTATT
361 GTGACATGAC ATGGGCACCC TATGGTCCCT ATTGGCGCCA AGCACGACGA ATTTACCTTA
421 ACCAGATATT TACTCCGAAA AGGCTAGACT CGTTCGAGTA CATTGCTGTT GAAGAAAGGC
481 AGGCCTGTAT TTCCCAGCTG AATTCCCTTG CTGAAAAGCC ATTTTTCTC AAAGACCATC
541 TGTCGCGATT TAGCCTCTGC AGCATGACAA GGATGGTTT GAGCAACAAG TATTTGGTG
601 AATCAACAGT TAGAGTAGAA GATTGCACTG ACCTGGTAGA TCAATGGTTC TTACTTAATG
661 GTGCTTCAA CATTGGAGAT TGAGTCCAT GGCTCAGCTT CTTGGACCTA CAAGGCTATG
721 TGAAACAAAT GAAGGTTTG AAAAGAACCTT TTGATAAGTT CCACAACATT GTGCTAGATG
781 ATCACAGGGC TAAGAAGAA GCGAGAGAAGA ATCTTGCTCC AAAAGACATG GTTGATGCT
841 TGTGAGAT GGCTGAAGAT CCTAATCTGG AAGTCAAACT CACTATGAC TGTGTCAG
901 GGTTAATGCA GGATTACTA ACTGGAGGAA CAGATAGCTT AACAGCAGCA GTGCAATGGG
961 CATTTCAGA ACTTCTTAGA CAGCCAAGGG TTATTGAGAA GGCAACCGAA GAGCTTGACC
1021 GGATTGTCGG GAAAGAGAGA TGTTGAGAAAG AAGAAAGATTG CTCGCAGCTA TCTTACGTTG
1081 AAGCAATCCT CAAGGAAACA CTAAGGTTAC ATCTCTAGG AACTATGCTA GCACCGCATT
1141 GTGCTATAGA AGATGTAAC GTGGCTGGTT ATGACATACA GAAAGGAACG ACCTTTCTGG
1201 TGAATGTTT GACCATTGGA AGGGACCCAA AATACTGGGA TAGAGCACAA GAGTTCTCC
1261 CCGAGAGATT TTTAGAGAAC GACATTGATA TGGAACGGACA TAACCTTGTCT TTCTTGCCT
1321 TTGGCTCGG CGCAAGGAGG CGCCCTGGCT ATAGCCTTGG ACTTAAGGTT ATCCGAGTAA
1381 CATTAGCCAA CATTTGCACT GGATTCAACT GGAAATTACC TGAAGGTATG AAGCCAGAAG
1441 ATATAAGTGT GGAAGAACAT TATGGGCTCA CTACACATCC TAAGTTCTC GTTCTGTGA
1501 TCTTGGAAATC TAGACTTTCTC TCAGATCTCT ATTCCCCCAT CACTTAATCC TAAGTGTTC
1561 CTATTATAGC

SEQ. ID. NO. 266

1 MENSWVFLAL AGLSALAFIC KIITCRRPVN RKIPPGPKPW PIIGNLNLLG PIPHQSF DLL
61 SKKYGELMLL KFGSRPVILVA SSAEMAKQFL KVHDANFASR PMLAGGKYTS YNYCDMTWAP
121 YGPYWRQARR IYLNQIFTPK RLDSFEYIRV EERQALISQL NSLAGKPFLL KDHLRSFSLC
181 SMTRMVLSNK YFGESTVRVE DLQYLVDQWF LLNGAFNIGD WIPWLSFLDL QGYVKQMKAL
241 KRTFDKFHN1 VLDDHRAKKN AEKNFVPKDM VDVLKKMAED PNLEVKLTD CVKGIMQDLL
301 TGGTDSLTAQ VQWAFQELLR QPRVIEKATE ELDRIVGKER WVEEKDCSQL SYVEAILKET
361 LRLHPLGTM1 APHCIAIEDCN VAGYDIQKGT TFLVNWTIG RDPKYWDRAQ EFLPERFLEN
421 DIDMDGHNFA FLPPFGSGRRR CPGYSLGLKV IRVTLANMLH GFNWKLPEGM KPEDISEEHH
481 YGLTTHPKFP VPVILESRSL SDLYSPIT

FIG. 134

NAME D257-AE4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 267

1 CACATTGAGT CCTCTCCAA ATCACTGATT CACCACAAA AGTACCAAACA ATTCAATGGA
61 AGGTACAAAC TTGACTACAT ATGCAGCAGT ATTTCTTGAT AACTCTTTC TTTTGTTCCT
121 TTCCAACATT CTTGCCAGA GAAAACCTAA TTTACCTCA GGCCAAAC CATGGCCGAT
181 CATCGGAAAC TTAAACCTTA TTGGCAATCT TCCTCATCGC TCAATCCACG AACTCTCCCT
241 CAAAGTACCGA CCCGTATGC AACTCCAATT CGGGTCTTTC CCGGTGTTAG TTGGATCCTC
301 CGTCGAAATG GCTAAGATTT TCCTCAAATC CATGGATATT AACTTTGTTAG GCAGGCCCTAA
361 AACGGCTGCC GGAAAATACA CAACGTACAA TTATTCGGAT ATTACATGGT CTCCCTACGG
421 ACCATATTGG CGCCAGGCAC GTAGGATGTT CCTAACGGAA TTATTCAAGCA CGAAACGTCT
481 CGATTCATAC GAGTATATTG GGGCTGAGGA GTTGCATTCT CTTCTCCATA ATTTGAACAA
541 AATATCAGGG AAACCAATTG TGTTGAAAGA TTATTTGACG ACGTTGAGTT TAAATGTTAT
601 TAGCAGGATG GTACTGGGG AAAGGTATTG GGACGAATCC GAGAACTCGT TCGTGAATCC
661 TTGAGGAATTG AAGAAGATGT TGAGCAATTG TTTTGTGCTA AATGGTGTAC TTAATATTGG
721 AGATTCAATT CCATGGATTG ATTTCATGGA TTGCAAGGT TATGTTAAGA GGATGAAAGT
781 AGTGAGCAAG AAATTCGACA AGTTTTAGA GCATGTTATT GATGAGCATA ACATTAGGAG
841 AAATGGAGTG GAGAATTATG TTGCTAAGGA TATGGTGGAT GTTTTGTGTC AGCTTGCTGA
901 TGATCCGAAAG TTGGAAGTTA AGCTGGAGAG ACATGGAGTC AAAGCATTCA CTCAGGATAT
961 GCTGGCTGGT GGAACCGAGA GTTCAGCAGT GACAGTGGAG TGGGCAATT CAGAGCTGCT
1021 AAAAGGCCG GAGATTTCA AAAAGGCTAC AGAAGAATTG GATCGAGTAA TTGGGAGAA
1081 TAGATGGTA CAAGAAAAGG ACATTCAAAATC TCATCCATTAC ATAGAGGCAA TAGTCAAAAGA
1141 GACTATGCGA CTGCACCCCG TGCGACCAAT GTTGGTGGCA CGTGAGTGTG GAGAAGATAT
1201 TAAGGTAGCA GGCTACGACG TTCAAGAAAGG AACTAGGGTT CTCGTGAGTG TATGGCATAT
1261 TGGAAGAGAC CCTACATTGT GGGACGAGCC TGAGGTGTT AAGCCGGAGA GATTCCATGA
1321 AAAGTCCTA GATTTAAAG GACATGATT TGAGCTTTTG CCATTTGGAG CGGGGAGAAG
1381 AATGTGCCCG GGTTATAGCT TGGGCTCAA GGTGATTCAA GCTAGCTTAG CTAATCTCT
1441 ACATGGATTT AACTGGTCAT TGCCCTGATAA TATGACTCCT GAGGACCTCA ACATGGATGA
1501 GATTTTGCGG CTCTCTACAC CTAAAAAATT TCCACTTGCT ACTGTGATTG AGCCAAGACT
1561 TTCACCAAAA CTTTACTCTG TTGATTCAAG CAGTTCTATG GATCCGTCAA GATAGAC

SEQ. ID. NO. 268

1 MEGTNLTTYA AVFLDTLFLL FLSKLLRORK LNLPGPKPW PIIGNLNLLIG NLPHRSIHEL
61 SLKYGPVMQL QFGSFVPPVG SSVEMAKIFL KSMDINFVGR PKTAAGKYTT YNYSDTWSP
121 YGPyWWRQARR MCLTELFSTK RLDSYEYIRA EELHSLHHNL NKISGKPIVL KDYLTTLSN
181 VISRMVLGKR YLDESENSFV NPEEFKKMLD ELFLLNGVLM IGDSIPWIDF MDLQGYVCRM
241 KVVSKKFDKF LEHVIDEHNI RRNGVENYVA KDMVDVLLQL ADDPKLEVKL ERHGVKAFTQ
301 DMLAGGTESS AVTVWEAISE LLKKPEIFKK ATEELDRVIG QNRWVQEKD1 PNHPYIEAIV
361 KETMRILHPVA PMIVPRECRE DIKVAGYDVQ KGTRVLVSVW TIGRDPTLWD EPEVFKPERF
421 HEKSIDVKGH DYELLPFGAG RRMCPGYSLG LKVIQASLAN LLHGFNWSLP DNMTPEDLNM
481 DEIFGLSTPK KFPLATVIEP RLSPKLYSV

FIG. 135

NAME D268-AE2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 269

1 TGCAATATAG TTTTCCTAGT CAGTTCTAGC CTCCCTTTCC TTGAAATAA TGGATTATCA
61 TATTTCCTTC CATTTCAGG CTCTTTAGG GCTTTAGCC TTTGTGTTCT TGCTATTAT
121 CTTATGGAGA AGAACACTCA CTCAAGAAA ATTAGCCCCT GAAATCCCAG GGGCATGGCC
181 TATTATAGGC CATCTCGTC AGCTGAGTGG TACTGATAAG AATATCCAT TTCCCCGAAT
241 ATTGGCGCT TTGGCAGATA AATATGGACC TGTCTTCACA CTGAGAATAG GGATGTACCC
301 CTATTTGATT GTCAACAATT GGAAAGCAGC TAAGGATTGT CTCACAACGC ATGATAAGGA
361 CTTCGCTGCC CGACCAACTT CTATGGCTGG TGAAAGCAGC GGGTACAAGT ATGCCAGGTT
421 TACTATGCT AATTGGTC CTATTTATAA CCAAGTGCAGC AAACATGCC TACAACATGT
481 ACTCTCGAGT ACTAAACTCG AGAAAATGAA ACACATACGT GTTTCTGAAT TGGAAACTAG
541 CATCAAAGAA TTATATTCTT TGACGCTGGG CAAAAACAAAC ATGCAAAAAG TGAATATAAG
601 TAAATGGTT GAACAAATTG CTTAAACAT AATCGTGAAG ACAATTGTC GCAAGAGATA
661 TAGCACACATA GAGGGAGATG AAAGGGCACA ACGTTTCAAGA AAGGCATTAA AGGGCATCAT
721 GTTTGTGTA GGGCAAATTG TTTTATGAA CGCAATTCCA TTCCCATTTGT TCAAATACTT
781 TGATTTCAA GGTCAATATAC AATTGATGAA CAAAATTAT AAAGACTTAG ATTCTATTCT
841 TCAAGGATGG TTGGATGATC ATATGATGAA CAAGGATGTA AACAAATAAGG ATCAAGATGC
901 CATAGATGCC ATGCTTAAGG TAACACAACAT TAATGAAATTC AAAGCCTATG GTTTTCTCA
961 GGCCACTGTG ATCAAGTCGA CAGTCTTGAG TTTGATCTTA GATGAAATG ACACAACCGC
1021 TGTTCATTTG ATATGGTAA TGTCCTTATT ACTGAACAAAT CCACATGTTA TGAAACAAGG
1081 CCAAGAAGAG ATAGACATGA AAGTGGTAA AGAGAGGTGG ATTGAAGATA CTGACATAAA
1141 AAATTAGTG TACCTTCAGG CTATCGTTAA AGAGACATTG CGCTTGATC CACCTGTTCC
1201 TTTCCTTTA CCACACGAAG CAGTGCAAGA TTGTTAAGTG ACTGGTTACC ACATTCTAA
1261 AGGTACTCGT CTATATATCA ATGCGTGGAA AGTACATCGC GATTCTGAAA TTTGGTCAGA
1321 GCCCGAAAAG TTATGCCCA ATAGATTCTT GACTAGCAAA GCAAATATAAG ATGCTCGGG
1381 TCAAATTTT GAATTATAC CGTTGGTTC TGGGAGACGG TCATGTCAG GGTAGTTT
1441 TGCGACTTTA GTGACACATC TGACTTTGG TCGCTTGCTT CAAGGTTTG ATTTAGTAA
1501 GCCATCAAAC ACGCCAATTG ACATGACAGA AGGCGTAGGC GTTACTTTGC CTAAGGTTAA
1561 TCAAGTGAATTA GTTCTAATT CCCCTCGTT ACCTTCTAAAG CTTTATTAT TTTGAAAGT
1621 CAAATCATCA ATCATGGGTT GAGTAATTAG TGACT

SEQ. ID. NO. 270

1 MDYHISFHQ ALLGLLAFVF LSIILWRRTL TSRKLAPEIP GAWPIIGHLR QLSGTDKNIP
61 FPRILGALAD KYGPVFTLRI GMYPYLIVNN WEAAKDCLTT HDKDFARPT SMAGESIGYK
121 YARFTYANFG PYYNQVRKLA LQHVLSSKLE EKMKHIRVSE LETSIKELYI LTGKNNMQK
181 VNISKWFEQL TLNIIVKTIC GKRYSNIEED EEAQRFRKAF KGIMFVVGQI VLYDAIPPL
241 FKYFDQGHI QLMNKIYKDL DSILQGWLDD HMMNKKDVNNK DQDAIDAMLK VTQLNEFKAY
301 GFSQATVIKS TVLSSLILDGN DTTAVHLLWV MSLLLNNPHV MKQGQEEIDM KVKGWERIED
361 TDIKNLVYLQ AIVKETLRLY PPVFLLPHE AVQDKVTGY HIPKGTRLYI NAWKVHRDSE
421 IWSEPEKFMP NRFLTSKANI DARGQNFEFI PFGSGRRSCP GLGFATLVTH LTFGRLLQGF
481 DFSKPSNTPI DMTEGVGVTI PKVNQVEVLI TPRLPSKLYL F

FIG. 136

NAME D283-AC1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 271

1 AGAGAGTGAA AATGGACGCA CTACTTCAAA TGACAGTAAC AGCATCTTGT GCTGCCATAG
61 TAATTACTCT GCTGGTGTGT ATATGGAGAG TGCTGAACCTG GATTGGTTC AGACCAAAGA
121 AATTGGAGTT GTTGGTGGAGA AAACAAGGTT TGGAAGGAAA TTCTTACAAG GTTTTGTATG
181 GGGACATGAA AGAGTTTCTC GGGATGATTA AGGAAGCATA CTCAAAGCCT ATGAGCTAT
241 CTGATGATGT AGCACCAAGA CTGATGCCTT TCTTTCTTGA AACCATCAA AAAATATGGAA
301 AAAGGAGCTT TATATGGTTT GGCTCAAGAC CACTAGTATT GATTATGGAT CCTGAGCTTA
361 TAAAGGAGT ACTCTCAAAATCCATCTGT ATCAAAAGCC TGGTGGAAAT CCATTAGCAA
421 CACTATTGGT ACAAGGAATA GCAACCTATG AGGAAGACAA ATGGGCCAAA CATAGAAAAA
481 TCATCAATCC CGCTTCCAT CTAGAGAAC TAAAGCTTAT GCTTCCACCA TTTCCCTTAA
541 GCTGTAGTGA GATGCTGAGC AAATGGGAAG ACATTGTTTC AGCTGATAGC TCACATGAGA
601 TAGATGTATG GTCTCACCTT GAGCAATTGA CTTGCGATGT GATCTCTCGG ACAGCTTTG
661 GCAGTAGTTA TGAAGAAGGT AGAAAGATTG TTGAACCTCA AAAGGAACAA GCTCACTATC
721 TTGTGGAAGT TTTCCGCTCC GTTATATCC CAGGAAGGAG ATTTTGCCA ACAAAGAGGA
781 ATAGAAGAAT GAAGGAAATA AAAAAGGATG TCCGGGCATC AATTAAAGGT ATTATTGATA
841 AAAGATGTGAA GGCAATGAAA GCAGGGGACCA CCAATAATGA GGATCTATTG GGTATATTAC
901 TGGAACTGAA TATTAAGGAA ATTGAACAGC ACGGAAACAA GGATTTGGA ATGAGCATTG
961 AAGAACGTAT TGAAGAATGC AAAGTTATTCT ATTGTCGTT CCAAGAACAT ACATCACTGT
1021 TACTCCATG GTCTCTAGT TTGTTGAGCA GGTATCAAGA TTGGCAGGCA CGGGCCAGAG
1081 AAGAAATCTT GCAAGTCTT GGCAGTCGAA AACCAAGATTG TGACGGATTAA AATCACTTAA
1141 AAATTGTGAC AATGATCTT TACGACTCTT TAAGGCTGTA TCCCTCACTA ATAACACTTA
1201 CCCGCCGTG TAATGAAGAC ATGTATTAG GAGAACTATC TCTACCAGCT GGTGTTCTAG
1261 TCTCTTGCC ATTGATTTTG TTGCACTATG ATGAAGAGAT ATGGGGTGAA GATGCAAAAGG
1321 AGTTCAAAACC AGAGAGATTG AGAGAAGGAA TATCAAGTGC AACAAAGGGT CAACTCACAT
1381 ATTTTCCATT TAGCTGGGGT CCTAGAAATAT GTATTGGACA AAATTTTGCC ATGTTAGAAG
1441 CAAAGATGGC TCTGTCTATG ATCCCTGCAAC GCTTCTCTT TGAACTGTCT CCGTCTTATG
1501 CACATGCCCA TCGGTCCATA ATAACCGTTC AGCCTCAGTA TGGTGTCCCA CTTATTTCC
1561 ACAAACTATA ATTTGGTAC TTCTACTAAT ATTTAGGGT TTATTCAAGAC TCAAAAAAAA

SEQ. ID. NO. 272

1 MTVTASCAAI VITLLVCIWR VLNWIWFRPK KLELLLRKQG LEGNSYKVLY GDMKEFSGMI
61 KEAYSKPMSL SDDVAPRLMP FFLETIKKYG KRFSIWFGRPL PLVLIMDPEL IKEVLSKIHL
121 YQKPGGNPLA TLLVQGIATV EEDKWKAKRK IINPAFHLEK LKLMPLAFRL SCSEMLSKWE
181 DIVSADSSHE IDVWSHLEQL TCDVSIERTAF GSSYEEGRKI FELQKEQAQY LVEVFRSVYI
241 PGRRFLPTKR NRRMKEIKKD VRASIKGID KRLKAMKAGD TNNEDELLGIL LESNIKEIEQ
301 HGNKDEGMSI EEVIEECKLF YFAQQETTSV LLLWSLVLLS RYQDWQARAR EEILQVFGSR
361 KPDFDGLNHL KIVTMILYES LRLYPSLITL TRRCNEDIVL GELSLPAGVL VSLPLILLHH
421 DEEIWGDEDAK EFKPERFREG ISSATKGQLT YFPFWGPPRI CIGQNFMAL EAKMALSMLQ
481 RFSFEILSPSY AHAPRSIITV QPQYGAPLIF HKL

FIG. 137

NAME D244-AB6
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 273

1 TGCAATATAG TTTTCCTAGT CAGTTCTAGC CTCCCTTTCC TTGAAATAA TGGATTATCA
61 TATTTCCTTC CATTTCAGG CTCTTTAGG GCTTTTAGCC TTTGTGTTCT TGTCTATTAT
121 CTTATGGAGA AGAACACTCA CTTCAGAAA ATTAGCCCCT GAAATCCAG GGGCATGCC
181 TATTATAGGC CATCTTCGTC AGCTGAGTGG TACTGATAAG AATATCCAT TTCCCCGAT
241 ATTGGCGCT TTGGCAGATA AATATGGACC TGTCTTCACA CTGAGAAATAG GGATGTACCC
301 CTATTTGATT GTCAACAATT GGGAGCAGC TAAGGATTGT CTCACAAACGC ATGATAAGGA
361 CTTggCTGCG CGAACCAACTT CTATGGCTGG TGAAGGCATC GGGTACAAGT ATGCGAGGT
421 TACTTATGCT AATTTGGTC CTTATTATAA CCAAGTGCAG AACATAGCCC TACAACATGT
481 ACTCTCGAGT ACTAAACTCG AGAAAATGAA ACACATACGT GTTCTGAAT TGGAAATAG
541 CATCAAAGAA TTATATTCTT TGACGCTGGG CAAAAACAAAC ATGAAAAG TGAATATAAG
601 TAAATGGTTT GAACAATTGA CTTAACAT AATCGTGAAG ACAATTGTTG GCAAGAGATA
661 TAGCAACATA GAGGAGGATG AAGAGGCACCA ACCTTCAGA AAGGCATTAA AGGGCATCAT
721 GTTGTGTGA GGGCAAAATTG TTATATGCA CGCAATTCCA TTCCCATTTG TCAAATACTT
781 TGATTTCCA GGTATATAC AATTGATGAA CAAAATTATTA AAAGACTTAG ATTCTATCTT
841 TCAAGGATGG TTGGATGATC ATATGATGAA CAAGGATGTA AACAAATAAG ATCAAGATGC
901 CATAGATGCC ATGCTTAAGG TAACACAAC TAATGAATTG AAAGCCTATG GTTTTCTCA
961 GGCCACTGTG ATCAAGTCGA CAGTCTTGAG TTTGATCTTA GATGGAATAG ACACAACCCG
1021 TGTTCATTTG ATATGGTAA TGCTCTTATT ACTGAAACAT CCACATGTTA TGAAACAAGG
1081 CCAAGAAGAG ATAGACATGA AAGTGGTAA AGAGAGGTGG ATTGAAGATA CTGACATAAA
1141 AAATTAGTG TACCTTCAGG CTATCGTTAA AGAGACATTG CGCTTGATC CACCTGTTCC
1201 TTTCTTTA CCACACGAAG CAGTGAAGA TTGAAAGTG ACTGGTTACC ACATTCTAA
1261 AGGTACTCGT CTATATATCA ATGCGTGGAA AGTACATCGC GATCCTGAAA TTTGGTCAGA
1321 GCCGAAAG TTTATGCCCA ATAGATTCTT GACTAGCAA GCAAATATAG ATGCTCGGG
1381 TCAAAATTG GAATTATAC CGTTGGTTC TGGGAGACGG TCATGTCAG GGATAGGTTT
1441 TGCGACTTTA GTGACACATC TGACTTTGG TCGCTTGCTT CAAGGTTTG ATTTTAGTAA
1501 GCCATCAAAC ACGCCAATTG ACATGACAGA AGGCGTAGGC GTTACTTTGC CTAAGGTTAA
1561 TCAAGTGAATGTTCTAATT CCCCTCGTTT ACCTTCTAAG CTTTATTAT TTTGAAGGTG
1621 CAAATCATCA ATCATGGCTT GAGTAATTAG TTATACTTA ATATGTTCT C

SEQ. ID. NO. 274

1 MDYHISFHQ ALLGLLAFVF LSIILWRRTL TSRKLAPEIP GAWPIIGHLR QLSGTDKNIP
61 FPRILGALAD KYGPVFTLRI GMYPYLIVNN WEAAKDCLT HDKDLAARPT SMAGESIGYK
121 YARFTYANFG PYYNQVRKLA LQHVLSSTKL EKMKHIRVSE LETSIKELYS LTGKNNMQK
181 VNISKWFEQL TLNIIVKTIC GKRYNSNIEED EEAQRFRKAF KGIMFVVGQI VLYDAIPFL
241 FKYFDQFGHQ QLMNKIYKDL DSILQGWLD MMNMDVNNK DQDAIDAMLK VTQLNEFKAY
301 GFSQATVIKS TVLSLILDGN DTAVHLIW MSLLLNNPHV MKQGQEEIDM KVGKERWIED
361 TDIKNLVYLQ AIVKETLRLY PPVPFLPHE AVQDKVTGY HIPKGTRLYI NAWKVHRDE
421 IWSPEKEFMP NRFLTSKANI DARGQNFEFI PFGSGRRSCP GIGFATLVTH LTFGRLLQGF
481 DFSKPSNTPI DMTEGVGVTL PKVNQVEVLI TPRLPSKLYL F

FIG. 138

NAME D205-BE9
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 275

1 TTTGATCAA CCATGGAGAA CCAATACTCC TACTCATTCT CTTCTACTT CTACTTAGCT
61 ATAGTACTGT TTCTCTTCC AATTTGGTC AAATATTCT TCCATCGGAG AAGAAATTAA
121 CCTCCAAGTC CATTTCCTCT TCCAATAATT GGTCACCTTT ACCTTCTCAA GAAAACCTCTC
181 CATCTCACTC TAACATCCTT ATCAGCTAA TATGGTCTGT TTTTATACCT CAAATTGGGC
241 TCTATGCCGT TGATTGTTGT GTCCCTCACCA TCTGCTGTTG AAGAATGTT ACCAAGAAT
301 GATATCATAT TCGCAAATAG GCCCAAGACC GTGCGCTGGTG ACAAGTTAAC CTACAATTAT
361 ACTGTTATG TTTGGGCACC CTATGGCCAA CTTTGGAGAA TTCTTCGCCG ATTAACGTG
421 GTTAACTCT TCTCTTCACA TAGCCTACAG AAAACTTCTA TCCTTAGAGA TCAAGAAGTT
481 GCAATATTTA TCCGGTCGTT ATACAAATT CTCAGGATA GTAGCAAAAA AGTCGATTG
541 ACCAACTGGT CTTTACTTT GTTTTCAAT CTTATGACCA AAATTATTGC TGGGAGACAT
601 ATTGTGAGG AGGAAGATGC TGCGAAAGGA AAGGGCATTG AAATTATTGA AAAACTTAGA
661 GGGACTTCT TAGTAACTAC ATCATTCTTG AATATGTTG ATTCCTTGCC AGTATTCAAG
721 TGGGTTGGT ACAAAGGGCA GGAGAAGAAG ATTCACATCA TTCACAATAG AAGAAATGAA
781 TTCTTGAACA GCTTGCCTGA TGAATTCGA CACAAGAAAA GTAGTGCCTC ACAATCTAAC
841 ACAACTGTTG GAAACATGGA GAAGAAAACC ACACGTATTG AAAAGCTCT GTCTCTCAA
901 GAATCAGAGC CTGAATTCTA CACTGATGAT ATCATCAAAA CTATTATGCT GGTAGTTTT
961 GTTGCAGGAA CAGAGACCTC ATCAACAAAC ATCCAATGGG TAATGAGGCT TCTTGTAGCT
1021 CACCCGGAGG CATTGATATAA GCTACGAGCT GACATTGACA GTAAAGTTGG GAATAAGGC
1081 TTGCTGAATG AATCAGACCT CAACAAGCTT CCGTATTTGC ATTGTGTGT TAATGAGACA
1141 ATGAGATTAT ACACCTCGAT ACCACTTTA TTGCGCTCATT ATTCAACTAA AGATTGTATT
1201 GTGGAGGAT ATGATGTACCA AAAACATACA ATGTTGTTG TCAACGCTTG GGCCATTAC
1261 AGGGATCCC AGGTATGGGA GGAGCCTGAC AAGTTCAAGC CAGAGAGATT TGAGGCAAC
1321 GAAGGGAAA CAGAAAGGTT CAAATTACAAG CTTGTACCAT TTGGAATGGG GAGAAGAGCG
1381 TGCCCTGGAG CTGATATGGG GTTGCAGCA GTTCTTTGG CATTAGGTGC ACTTATTCAA
1441 TGCTTGAATG GGCAATTGA GGAAGCGGAA AGCTTGAGG AAAGCTATAA TTCTAGAATG
1501 ACTATGCAGA ACAAGCCTT GAAGGTTGTC TGCACTCCAC CGGAAGATCT TGGCCAGCTT
1561 CTATCCCAAC TCTAAGGCAA TTATCAATG CCAAACGTAA TCTTCATCTA CCACTATG

SEQ. ID. NO. 276

1 MENQYSYSFS SYFYLAIIVLF LLPILVKYFF HRRRNLPSP FSLPIIGHLY LLKKTLHLT
61 TSLSAKYGPV LYLKLGSMPP IVVSSPSAVE ECLTKNDIIF ANRPKTVAGD KFTYNYTVV
121 WAPYGQLWRI LRRLTVVELF SSHSLQKTSI LRDQEVAIFI RSLYKFSKDS SKKVDLTNWS
181 FTLVFNLMTK IIAGRHVKE EDAGKEKGIE IIEKLRLGTFL VITSFLNMCD FLPVFRWVG
241 KGQEKKMASI HNRRNEFLNS LLDEFRHKKS SASQSNTTVG NMEKKTTIE KLLSLOESEP
301 EFYTDDIIKS IMLVVVFVAGT ETSSSTTIQWV MRLLVAHPEA LYKLRADIDS KVGNKRLNNE
361 SDLNKLPYLN CVVNETMRLY TPPIPLLLPHY STKDCIVEGY DVFKHTMLFV NAWAIHRDPK
421 VWEERPDKFP ERFEATEGET ERFNYKLVPF GMGRRACPGA DMGLRAVSLA LGALIQCFDW
481 QIEEAESLEE SYNSRMTMQN KPLKVVCPTP EDLGQLLSQL

FIG. 139

NAME D136-AF4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 277

1 CCTTTTAAG ATGTATTTAA GATTTAAGAT TTAAGATGAA GCAACTGAGG TAAGTCCCTT
61 CAAGGAGTAG TTGTCACTTC TGAGAATGGA GATGATGTAC AGCATAATAG CAGCAGCCAG
121 TATTGCAATT ATCTGGTAT ATACATGGAA ATGTTGAAT TGGGCTTGGT TTGGGCCGAA
181 GAAAATGGAG AAATGCTTAA GACAGAGGGG TCTCAAGGG AATCCTTATA AGCTACTCTA
241 TGGAGATCTA AACGAACCTGA CAAAAAGCAT AATAGAAGCC AAGTCTAACGC CCATCAATT
301 CTCTGATGAT ATTGCTCAA GGCTCATCCC TTTTTTCTT GACGCCATCA ACAAAAATGG
361 TAAAAAACCTC TTCGCTGGC TTGGACCGTA TCCAATAGTG TTGATCACGG ATCCTGAGCA
421 TTAAAGGAG ATTTCAACAA AGAATTATGT GTATCAAAAG CAAACTCATC CCAATCATA
481 CGCCAAGCTA TTAGCTCACG GTCTTGTCA GCTTGAGGA GACAAATGGG CCAAACACAG
541 AAAAATCATT AGTCTGCCT TCCATGTCGA GAAGCTAAAG CATATGTCG CTGCATTTTA
601 TCTGAGTTGT AGTGAATGA TAAGCAAATG GGAGGAGGTTT GTTCCAAAAG AAACATCATT
661 CGAGCTCGAT GTATGCCAG ACCTTCAAAT AATGACCAGT GAAGTCATTT CTGCGACTGC
721 ATTGGGAGT AGCTATGAAG AAGGAAGAAT ATGATTGAA CTTCAGAAAG AACAAAGCTGA
781 GTATGTATG GACATAGGAC GTCAATTAA TATACCAGGA TCAAGGTTCT TGCTACTAA
841 AAGGAACAAA AGAATGCTGG AAATTGAAAAA GCAAGTGCAA ACAACAAITA GGCCTATCAT
901 CGACAAAAAGA TTGAAGGCAA TTGAAGAAGG GGAGACTAGT AAAGATGACT TATTAGGCAT
961 ATTACTGAA TCCAATTGAA AAGAAATTGAA ACTTCAATGGA AGAAATGACT TGGGAATAAC
1021 AACGTCAAGAA GTGATTGAAAG AGTGCAGATT ATTCTATTTT GCCGGCCAAG AGACCACTTC
1081 AGTGTGCTT GTTGGACAA TGATTTGTT GTGCTTACAT CCAGAGTGGC AAGTACGTGC
1141 CAGAAAGGAA GTGTTGCAAA TCCTTGAAA TGATAAAACCA GATTGGAAAG GACTAAGTCG
1201 CTTGAAAATT GTAACAATGA TCCTGTCAGA GACCTTACGC CTATCCCCC CATTACAGC
1261 ATTGTTGAGA AGGAACAAAAG AAGAAGTCAA ATTAGGGGAG CTACATCTAC CGGCTGGAGT
1321 GTTACTCGTT ATACCAGCAA TCCTAGTACA TTATGATAAG GAAATATGGG GTGAAGATGC
1381 AAAGGAATTCA AAAACCGAAAA GATTCACTGA AGGAGTGTCA AAGGCAACAA ATGGACAAGT
1441 CTCATTATA CCATTTAGCT GGGGACCTCG TGTTGCATT GGACAAAATC TCGCAATGAT
1501 GGAAGCAAAA ATGCGAGTAA CTATGATACT ACAAAAATTC TCCTTTGAAC TATCCCCTTC
1561 TTATACACAT GCTCCATTG CAATTGTGAC TATTCACTCCC CAGTATGGT CTCCTCTGCT
1621 TATGCGCAGA CTTTAAACAA TATGTTGCTG ATATTTAAGA TCAGTGGCGT TTTATT

SEQ. ID. NO. 278

1 MEMMYSIIAA ASIAIILVYT WKVLNWAWFG PKKMEKCLRQ RGLKGNPYKL LYGDLNELTK
61 SIIEAKSKPI NFSDDIAQRL IPFFLDAINK NGKNNSFWLG PYPIVLITDP EHLKEIFTKN
121 YVYQKQTHPN PYAKLLAHGL VSLEEDKWAK HRKIISPAFH VEKLKHMLPA FYLSCSEMIS
181 KWEEVVVPKET SFELDVWPDL QIMTSEVISR TAFGSSYEEG RIVFELQKEQ AEYVMDIGRS
241 IYIPGSRFLP TKRNKRMLEI EKQVQTTIRR IIDKRLKAME EGESTKDLL GILLESNLKE
301 IELHGRNDLG ITTSEVIEEC KLFYFAGQET TSVLLIVWTMI LLCLHPEWQV RARKEVLQIF
361 GNDKPDLLEG SRLIKVTMIL YETLRLFPPL PAFGRRNKEE VKLGELHLPA GVLLVIPAIL
421 VHYDKEIWGE DAKEFKPERF SEGVSKATNG QVSFIPFSWG PRVCIGQNFA MMEAOKMAVTM
481 ILQKFSFELS PSYTHAPFAI VTIHPQYGA P LLMRRL

FIG. 140

NAME D101-BA2
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 279

1 CTTAAATTCA TATACCTTTA GTACTCTTGA AATTTCAA TAATGGTTTA TCTTCCTTCT
61 CCCATAGAAC CCATGTAGG ATTTGTAACC TTTCATTC TATTCTACTT TCTATGGACC
121 AAAAACAAAT CAAAATCTT AAACCCACTA CCTCCAAAAA TCCCAGGTGG ATGCCAGTA
181 ATCGGCATC TCTTTTATT CAAGAACAT GGCGATGAAG ATGCCATT TTCTCAAAA
241 CTCGGTACT TAGCTGACAA ATATGGTCCC GTCTTCACTT TCCGGTTAGG GTTTCGCCGT
301 TTCTTGGCGG TGAGTAGTTA TGAGGCTATG AAAAGATGCT TCACTACCAA TGATATCCAT
361 TTCGCCGATC GGCCATCTT ACTCTACCGA GAATACCTT GCTATAATAA TGCCATGCTT
421 GCTTGGCCA AATATGGCCC TTACTGGAAA AAAATCGAA AGTTAGTCAA TCAAGAAGTT
481 CTCTCCGTTA GTCGGCTCGA AAAATTCAAA CATGTTAGAT TTTCTATAAT TCAGAAAAAT
541 ATTAAACAAAT TGTATAATTG TGATTCCCA ATGGTGAAGA TAAACCTTAG TGATTGGATA
601 GATAAAATTG AATTCCGACAT CATTGGAAA ATGCTTGTG GGAAGAACTA TAATAATGGA
661 CATGGAGAAA TACTCAAAGT TGCTTTTCAG AAATTCATGG TTCAAGCTAT GGAGATGGAG
721 CTCTATGATG TTTTCACAT TCCTTTTCAG AAGTGGTTG ATCTTACAGG GAATATTAAAG
781 GCTATGAAAC AAACCTTCAA AGACATTGAT AATATTATCC AAGGTTGGTT AGATGAGCAC
841 ATTAAGAAGA GAGAAACAAA GGATGTTGGA GGTGAAAACG ACAAGATT TATAGATGTG
901 GTGCTTCTCA AGATGGGGCA CGAACATCTT GGCGAGGGTT ACTCTCATGA CACAACCATC
961 AAAGCAACTG TATTCACTT GGCTTGGAT GCAACAGACA CACTTGCAC TCATATAAAG
1021 TGGTTATGG CGTTAATGAT AAAACATAAG CATGTCATGA AGAAAGCACA AGAAGAGATG
1081 GACACAATTG TTGGTAGAGA TAGATGGGTAA GAAGAGAGTG ATATCAAGAA TTTGGTGTAT
1141 CTCCAAGCAA TTGTAAAGA AGTATTACGA TTACATCCAC CTGCACCTT GTCAGTCAA
1201 CACCTATCTG TGGAGAGATTG TGGTGTCAAT GGGTACCATTA TTCTAAAGGG GACTGCACTA
1261 CTTACCAATA TTATGAAACT ACAGCGAGAT CCTCAAACAT GGCCAAATCC TGATAAATT
1321 GATCCAGAGA GATTCTGTAC GACTCATGCT ACTATGACT ACCGCAGGCA GCACATATGAG
1381 TTGATCCCCCT TTGGTACGGG GAGACGAGCT TGTCCCGCGA TGAATTATTG ATTGAAGTG
1441 GAACACCTT CAATTGCTCA TATGATCCAA GGTTTCAAGTT TTGCAACTAC GACCAATGAG
1501 CCTTTGGATA TGAAACAAGG TGTGGTTTA ACTTTACCAA AGAAGACTGA TGTTGAAGTT
1561 CTAATTACCC CTCGTTT

SEQ. ID. NO. 280

1 MVYLLSPIEA IVGFVTFSL FYFLWTKKQS KILNPLPPKI PGGWPVIGHL FYFKNNGEDD
61 RHFSQLGDL ADKYGPVFTF RLGFRRFLAV SSYEAMKECF TTNDIHFAADR PSLLYGEYLC
121 YNNAMLAVAK YGPYWKKNRK LVNQEVLVS RLEFKHVRF SIIQKNIKQL YNCDSPMVKI
181 NLSWDIDKLT FDIILKMWVG KNYYNNNGHEI LKVAFQKFMV QAMEMELYDV FHIPFFKWL
241 LTGNIKAMKQ TFKDIDNIIQ GWLDEH1KKR ETKDVGGENE QDFIDVVLSK MSDEHLGEGY
301 SHDTTIKATV FTLVLDATDT LALHKWVMA LMINNKHVMK KAQEEMDTIV GRDRWVEESD
361 IKNLVYLQAI VKEVLRHPP APLSVQHLSV EDCVVCNGYHI PKGTALLTNI MKLQRDPQTW
421 PNPDKEPDER FLTTHATIDY RGQHYELIPF GTGRRACPAM NYSLQVEHLS IAHMIQGFSF
481 ATTTNEPLDM KQGVGLTPK KTDVEVLITP R

FIG. 141

NAME D130-AA1
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 281

1 CTTTTCTCC CCAAAAAGA GCTCATTCC CTTGTCCCCA AAAATGGATC TTCTCTTACT
61 AGAGAAAGACC TTAATTGGTC TCTTCCTTGC CATTTTAACG GCTGTAATG TCTCTAGACT
121 CGCTTCAAAG CGTTTTAACG TTCCCCCAGG ACCAATCCCA GTACCAAGTT TTGGTAATTG
181 GCTTCAAGTT GGTGATGATT TAAACCCACAG AAATCTTACT GATTTTGCCA AAAATTGG
241 TGATCTTTC TTGTTAAGAA TGCGGAGCG TAATTTAGTT GTTGTGTCA CTCCGTGATT
301 AGCTAAAGAA GTTTACACA CACAAGGTGT TGAATTTGGT TCAAGAACAA GAAATGGTGT
361 ATTTGATATT TTTACTGAA AAGGTCAAGA TATGGTTTT ACTGTATATG GTGAACACTG
421 GAGAAAAATG AGGAGAATT TGACTGTACC ATTTTTACT AATAAAAGTTG TGCAGCAATA
481 TAGAGGGGGG TGGGAGTTG AAGTGCCAAG TGTATTGAG GATGTGAAGA AAAATCCTGA
541 ATCTGCTACT AATGGGATTG TATNAAGGAG GAGATTACAA TTGATGATGT ATAATAATAT
601 GTTTAGGATT ATGTTTGATA GGAGATTGAG GAGTGAAGAT GATCCCTTGT TTGTTAAGCT
661 TAAGGCTTTG AATGGTGAAGA GGAGTAGATT GGCTCAGAGT TTTGAGTATA ATTATGGTGA
721 TTTTATTCCTTCTTGGAGCTTGGAG AGTTTATTGAG AAGATCTGTA AAGAAGTTAA
781 GGAGAAAGGG CTGCAGCTT TCAAGGATTA CTTTGTGAT GAAAGAAAGA AGCTTCAAA
841 TACCAAGAGC TTGGACAGCA ATGCTCTGAA ATGTCGATT GATCACATTC TTGAGGCTCA
901 ACAGAAGGGG GAGATCAATG AGGACAAACGT TCTTTACATT GTTGAACACCA TCAATGTTGC
961 TGCTATAGAA ACCACATTG GGTCAATTGAG GTGGGGTATC GCCGAGTTAG TCAACCAACCC
1021 TCACATCCAA AAGAAACTCC GCGACGAGAT TGACACAGTT CTTGGCCAG GAGTGAAGT
1081 GACTGAACCA GACACCCACA AGCTTCCATA CCTTCAGGCT GTGATCAAGG AGACGCTTCG
1141 TCTCGTATG GCAATTCTC TATTAGTCCC ACACATGAAC CTTCACGATG CAAAGCTTGG
1201 CGGGTTGAT ATTCCAGCAG AGAGCAAAAT CTTGGTTAAC GCTTGGTGGC TAGCTAACAA
1261 CCCGGCTCAT TGGAGAGAAC CCAGAAGAGTT CAGACCCGAG AGGTTCTTCG AAGAGGAGAA
1321 GCACGTGAG GCCAATGGCA ATGACTTCAG ATATCTTCCG TTTGGCGTTG GTAGGAGGAG
1381 TTGCCCTGGA ACTATACTTG CATTGCCAAT TCTTGGCATT ACTTTGGGAC GTTT

SEQ. ID. NO. 282

1 MDLLLLEKTL IGLFFAILIA VIVSRLRSKR FKLPPGPIPV PVFGNWLVQV DDLNHRNLTD
61 FAKKFGDLFL LRMQRNLVV VSPELAKEV LHTQVVEFGS RTRNVVFDFIF TGKGQDMVFT
121 VYGEHWRKMR RIMTPFFTN KVVOQYRGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNMFMFRIM FDRRFSEEDD PLFVKLKALN GERSRLAQSF EYNYGDFIPI LRPFLRGYLK
241 ICKEVKEKRL QLFKDYFVDE RKKLSNTKSL DSNALKAID HILEAQQKGE INEDNVLYIV
301 ENINVAIAET TLWSIEWGIA ELVNPHIQK KLRDEIDTVL GPGVQVTEDP THKLPYLQAV
361 IKETLRLRMA IPLLVPHMNL HDALKGGFDI PAESKILVNA WWLANNPAHW KKPEEFRPER
421 FFEEEKHIVEA NGNDFRYLPF GVGRRSCPFT ILALFILGIT LGR

FIG. 142

NAME D136-AD5
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 283

1 CCAAATTAGA GCAAGAAATT ACAAGTCTA GTTACCTTCT CCCTTTTAA GAGTATTTAA
61 GATTTAAGAT TTAAGATGAA GCAACTGAGG TAAGTCCTT CAAGGAGTAG TTGTCACTTC
121 TGAGAACGGA GATGATGTAC AGCATAATAG CAGCAGCCAG TATTGCAATT ATCTTGGTAT
181 ATACATGGAA AGTGGTGAAT TGGGCTTGGT TTGGGCCAAA GAAAATGGAG AAATGCTTAA
241 GACAGAGGGG TCTCAAGGGG AATCCTTATA AGCTACTCTA TGGAGATCTA AACGAACCTGA
301 CAAAAAGCAT AATAGAAGCC AAGTCTAAGC CCATCAATT CTCTGATGAT ATTGCTCAA
361 GGCTCATCCC TTTTTTCTT GACGCCATCA AAAAAAATGG TAAAAAACTCC TTCGTCCTGGC
421 TTGGACCGTA TCCAATAGTG TTGATCACGG ATCCTGAGCA TTTAAAGGAG ATTTCACAA
481 AGAATTATGT CTATCAAAG CAAACTGCATC CCAATCCATA CGCCAAGCTA TTAGCTCACG
541 GTCTTGTCACT CCTTGAGGAA GACAATGGG CCAAACACAG AAAAATCATT AGTCCTGCCT
601 TCCATGTGCA GAAGCTAAAG CATATGCTGC CTGCATTTTA TCTGAGTTGT AGTGAATGA
661 TAAGCAATG GGAGGGAGTT GTTCCAAAAG AAACATCATT CGAGCTCGAT GTATGGCCAG
721 ACCTTCAAAT AATGACCAGT GAAGTCATT CTGCACTGC ATTGGGAGT AGCTATGAAG
781 AAGGAAGAAT AGTATTGAA CTTCAGAAAG AAACAGCTGA TGTATGAAATG GACATAGGAC
841 GTTCATTTA TATACCAGGA TCAAGGTTCT TGCCTACTAA AAGGAACAAA AGAATGCTGG
901 AAATTGAAAA GCAAGTGC AAACAACATTA GGCATATCAT CGACAAAAGA TTGAAGGCAA
961 TGGAAAGGAGG GGAGACTAGT AAAGATGACT TATTAGGCAT ATTACTGAA TCCAATTGAA
1021 AAGAAATGAA ACTTCATGGA AGAAATGACT TGGGAATAAC AACATCAGAA GTGATTGAAG
1081 AGTGCAGTT AATCTATTTT GCCTGGCAAG AGACCACTTC AGTGTGCTT GTTTGGACAA
1141 TGATTTGTT GTGCTTACAT CCAGAGTGGC AAGTACGTGC CAGAAAGGAA GTGTTGCAGA
1201 CCTTTGGAAA TGATAAACCA GATTGGAAG GACTAAGTCG CTTGAAAATT GTAACATGA
1261 TCTTGTACGA GACGTTACGC CTATTCCCCC CATTACCGC ATTGGTAGA AGGAACAAAG
1321 AAGAAGTCAA ATTAGGGGAG CTACATCTAC CGCGTGGAGT GTTACTCGTT ATACCAGCAA
1381 TCTTACTACA TTATGATAAG GAAATATGGG GTGAAGATGC AAAGGAATTG AAACCAAGAAA
1441 GATTCACTGA AGGAGTGTCA AAGGCAACAA ATGGACAAGT CTCATTATA CCATTTAGCT
1501 AGGGACCTCG TGTTGCAATT GGACAAAAGTCGCAATGAT GGAAGCAAAATGGCACTAA
1561 CTATGACT ACAAAAATTC TCCTTTGAAC TATCCCTTC TTATACACAT GCTCCATTG
1621 CAATTGTGAC TATTCTACCC CAGTATGGT CTCCCTGCT TATGCGCAGA CTTTAAACAA
1681 TATGTTGCTG ATATTTAAGA TCAGTGGCGT TTTATTCTCC ATG

SEQ. ID. NO. 284

1 MEMMYSIIAA ASIAIILVYT WKVLNWAWFG PKKMEKCLRQ RGLKGNPYKL LYGDLNELTK
61 SIEAKSKPI NFSDDIAQRL IPFFLDAINK NGKNSFVWLW PYPIVLITDP EHLKEIFTKN
121 YVYQKQTHPN PYAKLLAHGL VSLEEDWKW HRKIIISPAPH VEKLKHMLPA FYLSCSEMIS
181 KWEEVVEKET SFELDVWPDL QIMTSEVISR TAFGSSYEEG RIVFELQKEQ AEYVMDIGRS
241 IYIPGSRFLP TKRNKRMLEI EKQVQTIRR IIDKRLKAME EGESTSKDDLL GILLESNLKE
301 IELHGRNDLG ITTSEVIEEC KLIYFAGQET TSVLLVWTMI LLCLHPEWQV RARKEVLQTF
361 GNDKPDLEG SRKIVTMIL YETLRLFPPL PAFGRRNKEE VKLGEHLPA GVLLVIPAIL
421 VHYDKEIWGE DAKEFKPERF SEGVSKATNG QVSFIPFS

FIG. 143

NAME D138-AD12
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 285

1 TTTGCCCTTG CTCGTCATTG ATGACGACTT CATTGGTTT TCTTCCCCAC GAAAATGGTA
61 GATATGATAT GGAGGGACGT AGGGAAAGAT TACTGGGACA AACCTAGTGA GTGAAAATGG
121 AAACAGTTGA AATGATAGTA AAAGTATCCTT GTGCTGCCAT AGTAATTACT CTGTTGGTGT
181 GTCTATGGAG AGTGTGAAT TGGGTTGGT TCAGACAAA GAAATTAGAG AAGTTGTTGA
241 GAAAACAGGT TTTGTATGGG GACATGAAAG AGTTTCTGG GATGATTAAG GAAGCATACT
301 CAAAGCCTAT GAGTCGTCT GATGATGTAG CACCACGAAT GATGCCTTTC TTTCTGAAA
361 CCATCAAGAA ATATGGAAA AGATCCTTTA TATGGTTCGG TCCAAGACCA CTAGTATTGA
421 TCATGGATCC TGAGCTTATA AAGGAAGTAC TCTCTTTAT CTTATTTAT CAAAGCCCG
481 GTGAAATCC ATTAGCAACA CTATGGTAC AAGGATTAGC AACCTATGAG GAAGACAAAT
541 GGGCAAAACA TAGAAAAATC ATCAATCCCG CTTCATCT AGAGAACGTA AAGCATATGC
601 TTCCAGCTT TCGCTTGAGC TGAGTGAGA TGCTGAGCAA ATGGGAAGAC ATTGTTTCAG
661 CTGAAGGCTC ACATGAGATA GATGTATGGC CTAACCTTGAG CCAATTGAGT TGCGATGTGA
721 TCTCTCGGAC AGCTTTGGC AATAGTTATG AAGAAGGTAG AAAGATTTT GAACCTCAA
781 AGGACAAAC TCAGCATCTT GTGGAAGCTT TCCGCTCTG TTATATCCC GGAAGGAGAT
841 TTTTGCCAAC AAAGAGGAAT AGAAGAATGA AGGAAATAAA AAAGGAGGTT CGAGCGTCAA
901 TTAAAGGTAT TATTGATAAA AGATTGAAGG CAATGAAAGC AGGGGACACC AATAATGAGG
961 ATCTATTGGG ATATTGCTG AATCAAATTG TAAAAGAATT GAACAGCGG GAAACAGGA
1021 TTTTGGAAATG AGCATTGAAG ATGTCTTGA AGAATGCAAG TTATTCTATT TTGCTGCCA
1081 AGAAACTACA TCAGTGTGTC TCCTATGGTC TCTAGTGTG TTGAGCAGGT ATCAAGATTG
1141 GCAGACACGG GCCAGAGAAG AAGTCTTGCA TGCTTTGGG AGTCGGAAAC CAGATTG
1201 TGAATTAAAT CATCTAAAAG TTGTGACAAT GATCATGTAC GAGTCTTTAA GGCTATATCC
1261 CTCACTAATA ACACATTACCC GCGGGTGTAA TGAAGACATT GTATTAGGAG AACTATCT
1321 ACCAGCTGGT GTCTAGTCT CTTGCCAAAT GATTTGTTG CATCATGATG AAGAGATATG
1381 GGGTGAAGAT GCAAAGGAGT TCAAACACAGA GAGAGTTAGA GAAGGATTGT CAAGTGAAC
1441 AAAGGTCAA CTTACATATT TTCCATTGG CTGGGGTCT AGAATATGTA TTGGACAAAAA
1501 TTTTGCCTATG TTAGAAGCAA AGATGGCTCT GTCTATGATC CTGCAACGCT TCTCTTTGA
1561 ACTGCTCCCG TCTTATGCAC ATGCCCTCA GTCCATATTA ACCGTTCAAG CTCATATGG
1621 TGCTCCACTT ATTTCCACA AGCTATAATT TGGTACTTGT GAAAGGTGTC TTGTACAATA
1681 TGTTAGTAGA GTTATTTCAG ACTTAGATAC ATGCTTC

SEQ. ID. NO. 286

1 METVEMIVKV SCAAIVITLL VCLWRVLNWV WFRPKKLEKL LRKVQLYGDM KEFSGMIKEA
61 YSKPMSSLDD VAPRMPFFL ETIKKYGKRS FIWFGRPLV LIMDPELIKE VLSKIYLYQK
121 PGGNPLATLL VQGLATYEED KWAHKRKTIN PAFHLEKLKH MLPAFRLSCS EMLSKWEDIV
181 SAEGSHEIDV WPNLEQLSCD VISRTAFGNS YEERKIFEL QKEQTQHLVE AFRSVYIPGR
241 RFLPTKRNR MKEIKKEVRA SIKGIIDKRL KAMKAGDTNN EDLLGYCWQN ILKKLNSAET
301 RILE

FIG. 144

NAME D216-AG8
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 287

1 CCAAAATGCA GTTCTTCAAC TTTCATTTCT TTGTCTTTT TGTGTCTTC CTCTTTTAT
61 TAAGGAATG GAAGAACCTCC AATAGCCAAA CCAAAAGATT GCCTCCAGGT CCATGAAAT
121 TACCTGACT TGGAAGCATG TTTCATTTGC TAGGTGGACC TCCACATCAT GTCCTTGGAG
181 ATTTAGCCAA AAAATATGGT CCACTTATGC ACCTTCAACT AGGTGAAGTT TCTGTAGTTT
241 CTGTTACTTC TCCTGAGATG GCAAAAGAAG TACTAAAAAC TCATGACCTC GCTTTTGAT
301 CTAGGCCGTT ACTTTGGCA GCCAAAATTG TCTGCTATAA TGGGACAGAC ATTGTCTTT
361 CCCCCTATGG CGATTATTGG AGACAAACGC STAAAATTG TCTCTTGGAA TTGCTCAGTG
421 CCAAAATG TAGTCATTG AGCTCAGTCA GACGAGATGA AGTTTTCCAT ATGATTGAAT
481 TTTTTTCGAT CATTTCTGG TAAGCCAGTT AATGTATCAA AAAGGATTTC TCTATTCA
541 ACCTCTATGA CATGTAGATC AGCCTTGGA CAAGAATACA AGGAGCAAGA CGAATTGCGA
601 CAACTAGTAA AAAAGTGTG AAGCTTAATG GAAGGGTTTG ATGTTGCTGA TATATTCCCT
661 TCATTGAGT TTCTTCATGT GCTCAGTGGA ATGAAGGCTA AAGTTATGGA TGCACACCAT
721 GAGTTAGATG CCATCTTGA AAAAATTATC AATGAGCACA AGAAAATTGC AACTGAAAG
781 AATAATAATG ATTAGGAGG TGAGGATTA ATTGACGTAC TGCTAAGACT TATGAAAGAG
841 GGAGGCCCTTC AATTCCCGAT CACCAACGAC AACATCAAAG CTATTATTT TGACATGTTT
901 GGTGCGGAA CGGAAACTTC ATCAACCCA ATTGACTGGG CCATGGTCGA AATGATAAAG
961 AATCCAAGTG TATTGCTAA AGCTCAAGCAGA GAGGTAAGAG AAGCCTTCAG AGAGAAAGAA
1021 ACTTTGATG AAAATGATGT CGAGGAGTTG AAATACTTAA AATTGGTTAT CAAAGAAACT
1081 TTCAGACTCC ATCCCTCATT TCCCCTTTG CTCCCAAGAG AATCTAGAGA AGAAACAGAT
1141 ATAAACGGCT ACACATTCC TTTTAAACA AAACCTTATGG TTAACGTTG GGCTATTGGA
1201 AGAGATCCAA AATATTGGG TGACGTGCAA AGTTTTAAGC CAGAGAGATT TGAGCACAAAC
1261 TCTATGGATT TTATGGTAA TAATTTGAA TATCTTCCCT TTGGTAGTGG AAGGAGATG
1321 TGCCCTGGGA TATCATTGGG TTGGCTAAT GTTTATTGCA CACTAGCTCA ATTCTTATAT
1381 CATTTGATT GGAAACTCCC TACTGGAATC AATTCAAGTG ACTTGGACAT GACTGAGTCG
1441 TCAGGAGTAA CTTGTGCTAG AAAGAGTGTAT TTATACCTGA CTGCTACTCC ATATCAACTT
1501 TCTCAAGAGT GATGCAATGA TATCAACCTT TTGAATTTCG GTCAACCCCA CCAATAGTG

SEQ. ID. NO. 288

1 MOFFNFISFV FFVSFLFLR KWKNSNSQTK RLPPGPWKLP VLGSMFHLLG GPPHHVLGDL
61 AKKYGPLMHL QLGEVSVSV TSPEMAKEVL KTHDLAFASR PLLLAAKIVC YNGTDIVFSP
121 YGDYWRQTRK ICLLELLSAK NVRSFSSVR DEVFHMIEFF SIIFW

FIG. 145

NAME D243-AB3
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 289

1 CCCCACCAAA AAATCATTTC TCTCGTCTAA AATGGATCTT CTCTTAAGCTAG AGAACGACCTT
61 AATTGGTCTT TTCTTGCCA TTTAACATCGC TTTAATTGTC TCTAAACTTC GTCAAAGCG
121 TTTAACGCTT CCTCCAGGAC CAATCCAGT ACCAGTTTT GGTAATTGGC TTCAAGTTGG
181 TGATGATTTA AACCAAGAAA ATCTTACTGA TTATGCCAAG AAATTGGAG ATCTTTCTT
241 GTTAAGAATG GGTCAACGTA ACTTAGTTGT TTGTCATCT CCTGAATTAG CTAAGAAGT
301 TTTACACACA CAAGGTGTTG AATTGGTTC AAGAACAAAGA AATGTTGTGT TTGATATTTT
361 TACTGGAAAA GGTCAAGATA TGTTTTAC TGTATATGGT GAACATTGGA GAAAATGAG
421 GAGAATTATG ACTGTACCAT TTTTACTAA TAAAGTTGTG CAACAGTATA GAGGGGGGTG
481 GGAGTTGAG GTGGCAAGTG TAATTGAGGA TTGAAAAAA AATCTGAAT CTGCTACTAA
541 TGGGATCGTA TAAAGGAGGA GATTACAATT AATGATGTTA AATAATATGT TTAGGATTAT
601 GTTTGATAGG AGATTGAGA GTGAAGATGA TCCTTGTGTT GTTAAGCTTA AGGCTTGAA
661 TGGTGAAGG AGTAGATTGG CTCAAAGTT TGAGTATAAT TATGGTATT TTATTCCAAT
721 TTTGAGGCCT TTTTTGAGA GTTATTGAGA AGATCTGTAAGAAGTTAAG GAGAAGGAGC
781 TGCAGCTTT CAAAGATTAC TTGTTGATG AAAGAAAGAA GCTTTCGAAT ACCAAGAGCT
841 CGGACGCAA TGCCCTAAA TGTCGATTG ATCACATTCT TGAGGCTCAA CAGAAGGGAG
901 AGATCAATGA GGACAACTT CTTTACATTG TTGAAAACAT CAATGTTGCT GCAATTGAAA
961 CAACATTATG GTCAATTGAG TGGGGTATCG CCGAGCTAGT CAACCACCT CACATCCAAA
1021 AGAAACTGCG CGACGAGATT GACACAGTT TTGGACCAAGG AGTGCAGTGC ACTGAAACCAG
1081 ACACCCACAA GCTTCCATAC CTTCAGGCTG TGATCAAGGA GGCACCTTCG CTCCGTATGG
1141 CAATTCTCT ATTAGTCCCA CACATGAACC TTCACGACGC AAAGCTTGGC GGGTTTGATA
1201 TTCCAGCAGA GAGCAAAATC TTGGTTAACG TTGGTGGTT AGCTAACAC CCGGCTCATT
1261 GGAAGAACCG CGAAGAGTTG AGACCCGAGA GGTCTTTGA AGAGGAGAAG CATGTTGAGG
1321 CCAATGGCAA TGACTTCAGA TATCTTCGTT TTGGCGTTGG TAGGAGGAGC TGCCCTGGAA
1381 TTATACTTGC ATTGCCAATC TTGGCATCA CTTTGGGACG TTGGTTCAAG AACTTTGAGC
1441 TGTTGCCTCC TCCAGGCCAG TCGAAGCTCG ACACCCACAGA GAAAGGTGGA CAGTTCAGTC
1501 TCCACATTTC GAAGCATTCC ACCATTGTGT TGAAACCAAG GTCTTCTGA ACTTTGTGAT
1561 CTTATTAAATT AAGGGTTCT GAAGAAATT GATAGTGTG G

SEQ. ID. NO. 290

1 MDLLLLEKTL IGLFFAILIA LIVSKLRSKR FKLPPIPPIV PVFGNWLQVG DDLNHRNLTD
61 YAKKFGLFL LRMQRNLVV VSSPELAKEV LHGTGVEFGS RTRNVVFIDF TGKGQDMVFT
121 VYGEHWRKMR RIMTPFFTN KVQQYRGW EFEVASVIED VKKNPESATN GIVLRRRLQL
181 MMYNNMFRIM FDRRFESEDD PLFVKLKLNA GERSRLAQSF EYNYGDFIPI LRPFFERLFE
241 DL

FIG. 146

NAME D250-AC11
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 291

1 ATAATGCTCT TTCTACTCTT TGAGCCCTT CCTTCATT C TTTCTAAA
61 TTCAAAAATG GTGAAATAA CAGATTGCCA CCAGGTCTTA TAGGTTAAC ATTCAATTGGA
121 AATTCGATC AATATGATAG TATAACTCCT CATATCTATT TTGGAAACT TTCCAAAAAA
181 TATGGCAAAA TCTTCTCATT AAAACTTGCT TCTACTAATG TGGTAGTAGT TTCTTCAGCA
241 AAATTAGCAA AAGAAGTATT GAAAAAACAA GATTTAATAT TTTGTAGTAG ACCATCTATT
301 CTTGGCCAAC AAAAATGTC TTATATGGT CGTGATATTG CTTTGCAAC TTATAATGAT
361 TATTGGAGAG AAATGAGAAA AATTCTGTT CTTCATCTTT TTAGTTAAA AAAAGTCAA
421 TTATTTAGTC CAATTGTGA AGATGAAGTT TTTAGAATGA TTAAGAAAAT ATCAAAACAA
481 GCTTCTACTT CACAAAATTAT TAATTGAGT AATTTAATGA TTTCATTAAC AAGTACAATT
541 ATTTGTAGAG TTGCTTTGG TTGTTAGGTT GAAGAAGAAG CACATGCAAG GAAGAGATTT
601 GATTTCTT TGGCCGAGGC ACAAGAAATG ATGCTAGTT TCTTGATAC TGATTTTTT
661 CCCTTTTAA GTTAGATTGA CAAATTAAGT GGATTGACAT ATAGACTTGA GAGGAATTTC
721 AAGGATTGG ATAATTTTA TGAGAAACTC ATTGAGCAAC ATCAAAATCC TAATAAGCCA
781 AAATATATGG AAGGAGATAT TTGATCTT TTGCTACAAAT TGAAGAAAGA GAAATTAACA
841 CCACCTGATC TCACATGGG AGATATAAAA GGAATTCTCA TGAATGTGTT AGTTGCAGGA
901 TCAGACATC TGCGACTGCA TACTTTGGT GCATGACAG CCTTGATAAA GAATCTAAA
961 GCCATGGAAA AAGTCAATT AGAAATCAGA AAATCAGTT GGAAGAAAG CATTGAAAT
1021 GAAGAAGATG TCCAAAACAT CCCTTATTTT AAAGCAGTGA TAAAGGAAAT ATTTAGATTG
1081 TATCCACCCAG CTCCACTTTT AGTTCCAAGA GAATCAATGG AAAAACCACAT ATTAGAAGGT
1141 TATGAAATTG GGCCAAGAAC CATAGTTCAT GTTAACGCTT GGGCTATAGC AAGGGATCCT
1201 GAAATATGGG AAAATCCAGA TGAAATTATA CCGAGAGAT TTTGAAATAG CAGTATCGAT
1261 TACAAGGGTC AAGATTGTGA GTTACTTCCA TTGGTGCAG GCAGAAGAGG TTGCCAGGT
1321 ATTGCACTTG GGGTTGCATC CATGGAACTT GCTTGTCAA ATCTCTTTA TGCATTGAT
1381 TGGGAGTTGC CTTATGGAGT GAAAAAAAGAA GACATCGACA CAAACGTTAG GCCTGGAATT
1441 GCCATGACCA AGAAAACGCA ACTTTGCCTT GTCCCCAAA AATTATTAT AAATTATATT
1501 GGGACGTGGA TCTCATGCTA GTTCTGTGCG GTCACTAAG CTTA

SEQ. ID. NO. 292

1 MLFLLFVALP FILIFLLPKF KNGNNNRLLPP GPIGLPFIGN LHOYDSITPH IYFWKLSKKY
61 GKIFSLKLAS TNVVVVSAAK LAKEVLKKQD LIFCSRPSIL GQQKLSYYGR DIAFAPYNDY
121 WREMRKICVL HLFSLKKVQL FSPPIREDEVF RMIIKKISKQA STSQIINLSN LMISLTSTII
181 CRVAFGVRFE EEAHARKRFD FLLAEAQEMM ASFFVSDFFF FLS.IDKLSG LTYRLERNFK
241 DLDNFYEELI EQHQNPNKPK YMEGDIVDLL LQLKKEKLTP LDILTMEEDIKG ILMNVILVAGS
301 DTSAAATVWA MTALIKNPKA MEKVQLEIRK SVGKGIVNE EDVQNI PYFK AVIKEIFRLY
361 PPAPLLVPRE SMEKTILEGY EIRPRTIVHV NAWAIARDPE IWENPDEFIP ERFLNSSIDY
421 KGQDFELLPF GAGRRCGPGI ALGVASMELA LSNLLYAFDW ELPYGVKED IDTNVRPGIA
481 MHKKNELCLV PKKLFINYIG TWISC

FIG. 147

NAME D205-AH4
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 293

1 GTGAGGTTTG AATCCCTCTGC CTCAGTAAA CTCACCAAAAT TGGTTTTCTA ATTTCCATCT
61 AAAATATTGT CCAAAGCTAA AGATTCTTC TCCTTAAATA GTCAACTTAA GTGTTCCCTC
121 TTCATTCTCAT AGCTCAATCT TTCTTATTT GATTCAACCA TGGAGAACCA ATACTCCTAC
181 TCATTCTCTT CCTACTTCTA CTAGCTATA GTACTGTTTC TTCTTCCAAT TTTGGTCAA
241 TATTCCTTCC ATCGGAGAAAG AAATTTACCT CCAAGTCCAT TTTCTCTTCC AATAATGGT
301 CACCTTACCA TTCTCAAGAA AACCTCTCCAT CTCACTCTAA CATCCTTATC AGCTAAATAT
361 GGTCTGTT TATACCTCAA ATTGGGCTCT ATGCCGTGA TTGTTGTGTC CTCACCATCT
421 GCTGTTGAAG AATGTTAAC CAAGAAATGAT ATCATATTG CAAATAGGCC CAAGACCGTG
481 GCTGGTACA AGTTACCTA CAATTATACT GTTTATGTTT GGGCACCTA TGGCAACTT
541 TGGAGAATTC TTCGCCGATT AACTGTGTT GAACCTCTCT CTTCACATAG CCTACAGAAA
601 ACTTCTATCC TTAGAGATCA AGAAGTTGCA ATATTATTC TTGCTGTATA CAAATTCTCA
661 AAGGATAGTA GCAAAAAAAGT CGATTGACC AACTGGTCTT TTACTTTGGT TTCAATCTT
721 ATGACCAAAA TTATTGCTGG GAGACATAT GTGAGGGAGG AAGATGCTGG CAAGGAAAAG
781 GGCATTGAAA TTATTGAAAA ACTTAGAGGG ACTTTCTTAG TAATCACATC ATTCTTGAAT
841 ATGTGTTGATT TCTTGCCAGT ATTCAAGTGG GTGGGTTACA AAGGGCTGGA GAAGAAATG
901 GCCTCAATTC ACAATAGAAC AAATGAATTC TTGACAGCT TGCTTGATGA ATTTCGACAC
961 AAGAAAAGTA GTGCTTACA ATCTAACACA ACTTGGAA ACATGGAGAA GAAAACCCACA
1021 CTGATTGAAA AGCTCTTGTCTC TTCTCAAGAA TCAGAGCTG AATTCTACAC TGATGATATC
1081 ATCAAAAGTA TTATGCTGGT AGTTTTGTT GCAGGAAACAG AGACCTCATC ACAACCATC
1141 CAATGGTAA TGAGGCTTCT TGAGGCTCAC CCTGAGGCAT TGTATAAGCT ACGAGCTGAC
1201 ATTGACAGTA AAGTGGGAA TAAGCGCTTG CTGAATGAAT CAGACCTCAA CAAGCTTCCG
1261 TATTGCTTGTGTTAA TGAGACAATG AGATTATACA CTCCGATACC ACTTTTATTG
1321 CCTCATTTT CAACTAAAGA TTGTATTGTG GAAGGATATG ATGTACCAAA ACATACAATG
1381 TTGTTGTCA ACGCTGGGC CATTACAGG GATCCAAGG TATGGGAGGA GCCTGACAAG
1441 TTCAAGCCAG AGAGATTGAG GGCACACAGA GGGAAACAG AAAGGTTCAA TTACAAGCTT
1501 GTACCATTTG GAATGGGAG AAGAGCGTGC CCTGGAGCTG ATATGGGGTT GCGAGGAGTT
1561 TCTTGGCAT TAGGTGCACT TATTCAATGC TTGACTGGC AAATTGAGGA AGCGGAAAGC
1621 TTGGAGAAA GCTATAATTC TAGAATGACT ATGAGAACACA AGCCTTGAA GGTTGTCTGC
1681 ACTCCACGCG AAGATCTTGG CCAGCTTCTA TCCCACACT AAGGCAATT ATCAATGCCA
1741 AACGTAATCT TCATCTACCA CTATG

SEQ. ID. NO. 294

1 MENQYSYSFS SYFYLAIVLF LL PILVKYFF HRRRNLPSP FSLPIIGHLY LLKKTLHLTL
61 TSLSAKYGPV LYLKLGSMVP IVVSSPSAVE ECLTKNDIIF ANRPKTVAAGD KFTYNYTVYV
121 WAPYQQLWRI LRRLTVVELF SSHSLQKTSI LRDQEVAIFI RSLYKFSKDS SKKVDLTNWS
181 FTLVFNLMTK IIAGRHHIVKE EDAGKEKGIE IIEKLRGTFI VTTSFNIMCD FLPVFRWVGY
241 KGLEKKMASI HNRNRNEFLNS LLDEFRHKKS SASQSNTTVG NMEKKTTLIE KLLSLQESEP
301 EFYTDDIIKS IMLVVFVAGG ETSSSTTIQWV MRLLVAHPEA LYKLRADIDS KVGNKRLLNE
361 SDLNKLPLYH CVVNETMRLY TPIPLLLPHY STKDCIVEGY DVPKHTMLFV NAWAIHRDPK
421 VWEEDPKFP ERFEATEGET ERFNYKLVFF GMGRRACPGA DMGLRAVSLA LGALIQCFDW
481 QIEEEAESLEE SYNSRMTMQN KKLKVVCPTP EDLGQLLSQL

FIG. 148

NAME D267-AF10
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 295

1 AACATCCTT CCTTCTTCCA AAAATGGAGC TTCAATCTTC TCCTTCAAT TTAATTCTT
61 TGTTCCCTT CTTTCTTT CTTTTATTG TAGTGAAGAA ATGGAATGCC AAAATCCAA
121 AGTTACCTCC AGGTCCGTGG AGCCTCCCT TTATTGGAAG CCTCCATCAC TTGAAGGGAA
181 AACTTCACCA CCATAATCTT AGAGATCTAG CGCGAAAATA TGGACCTCTC ATGACTTAC
241 AACTCGGAGA AATTCTGTG GTTGTAAATAT CTTCGCCACG TGAGCAAAA GCTGTACTAA
301 AACTCATGA TCTCGCTTT GCAACTAGAC CACGATTCTAT GTCCCTCAGAC ATTGTGTTT
361 ACAAAAGCAG GGACATCTCT TTGGCCCCAT TTGGTGTGTTA CTGGAGACAG ATGCGTAAAA
421 TATTGACTCA GGAACCTCTG AGCAACAAGA TGCTCAAGTC ATATAGCTTA ATCCGAAAGG
481 ATGAGCTCTC GAAGCTCCTC TCATCGATTG GTTGGAAAC AGGTCTGCA GTGAACATAA
541 ATGAAAAGCT TCTCTGGTTT ACCAGGCTGCA TGACCTGTAG ATTACCTTT GGAAAATAT
601 GCAATGATCG GGATGAGTTG ATCATGCTAA TTAGGGAGAT ATTAACATTA TCAGGAGGAT
661 TTGATGTGGG TGATTGTTG CTTCTCTGGA AATTACTTCA TAATATGAGC AACATGAAAG
721 CTAGGTGAC GAATGTACAC CACAAGTATG ATTTAGTTAT GGAGAACATC ATCAATGAGC
781 ACCAAGAGAA TCATGCAGCA GGATAAAGG GAAACAAGG GTAAACAAGG GTTGGTGGC GAAGATGAA
841 TCGATGCTCT ACTGAGGGCT AAGGAGATAA ATGAGCTTA ATTTCTATC GAAAATGACA
901 ACATGAAAGC ACTAATTCCTG GACTTGTGTTA TTGCTGGAC TGAAACTTCA TATACTGCAA
961 TTATATGGGC ACTATCAGAA TTGATGAAGC ACCCAAGTGT GATGGCCAAG GCACAAGCTG
1021 AAGTGAGAAA AGTCTTCAAA GAAAATGAAA ATTCGACGA AAATGATCTT GACAAGTTGC
1081 CATACTAAA ATCAGTGATT AAAGAACAC TAAGGATGCA CCCTCCAGTT CCTTGTGTTAG
1141 GGCCTAGAGA ATGCAGGGAC AACACAGAGA TCGATGGCTA CACTGTACTT ATTAAAGCTA
1201 GAGTTATGGT TAATGCTTGG CGCATAGGAA GAGATCCTGA AAGTTGGAA GATCCTGAAA
1261 GTTCAAAACC GGAGCGATTG GAAAATACTT CTGTTGATCT TACAGGAAT CACTATCAGT
1321 TCATTCCTT CGCTCAGGA AGAAGAATGT GTCCAGGAAT GTCGTTGGT TTAGTTAAC
1381 CAGGGCATCC TTAGGCCAG TTGCTCTATT GTCTTGACTG GAAACTCCCT GACAAGGTTA
1441 ATGCAAATGA TTTCGCACT ACTGAAACAA GTAGAGTTTT TGCAAGC AAAAGATGACC
1501 TCTACTTGT TCCCCAAAT CACAGGGAGC AAGAATAGCT TAATTTAATG GAGTTCTGG
1561 AAGAATTAAA GAAGAAGGGC TATATAGTG AGATTTTTG TATGGTTGCA AGGTTTTAG
1621 TTCATACAAAT AAGACAATAC ATTATATTCC AGTATTGTGT ATCATGTATA ATAAGGTTCC
1681 TTTTGTAA AAAA

SEQ. ID. NO. 296

1 MELQSSPFNL ISLFLFFSFL FILVKKWNK IPKLPPGPWR LPFIGSLHHL KGKLPHHNLR
61 DLARKYGLM YLQIGEIPVV VISSPRVAKA VLKTHDLAFA TRPRFMSSDI VFYKSRDISF
121 APFGDYWRQM RKIIITQELLS NKMILKSYSLI RKDELSKLLS SIRLETGSBV NINEKLWFT
181 SCMTCRЛАFG KICNDRDELI MLIREILTLS GGFDVGDLFV SWKLLHNMNSN MKARLTNVHH
241 KYDLVMEII NEHQENHAAG IKGNNEFGGE DMIDALLRAK ENNELQFPPIE NDNMKAVID
301 LFIAGTETSY TAIIWALSEL MKHP SVMMAKA QAEVRKFKE NENFDENDLD KLPYIJKSVIK
361 ETLMHMPPVP LLGPRECRDQ TEIDGYTVPI KARVMVNAWA IGRDPESWED PESFKPERFE
421 NTSVDLTGNH YQFIPFGSGR RMCPGMSFGL VNTGHPLAQI LYCFDWKLFD KVNAANDRTT
481 ETSRVFAASK DDLYLIPTNH REQE

FIG. 149

NAME D284-AH5
ORGANISM NICOTIANA TABACUM
SEQ. ID. NO. 297

1 CAATCAGTGG ATGCGGGAGT AATATATAAT ATGCAAGTTG TAGAAAGAGA AAAAAAAAAT
61 CAAGTAGCTA TTCTATAGT GGGCACAAAT AGTGAGTGAA AATGGAGACT GTTCAAATCA
121 TAATAACAGC ATCTGTGCT GCCATAATAA TTACTCTAGT GGTGTGTATT TGGAGAGTAC
181 TGAATTGGGT TTGGTCAGA CCAAAGAACG TGAAAAGACT ATTGAGGAAA CAAGGTCTCA
241 AAGGCAACTC CTACAAGATT TTGTATGGGG ATATGAAGGA GCTTTCTGGT ATGATTAAGG
301 AACCTTAATTG CAAACCCATG AATCTTCTG ATGATATTGC ACCAAGATG GTGCCTTCT
361 TTCTTGACAC CATCAAGAAA TATGGTAAAA AATCCTTTGT ATGGTTAGGT CCGAAACCAC
421 TGGTTCTTAT CATGAGCCCT GAGCTTATAA AGGAAATATT TTCCAAATAC TATCTGTATC
481 AAAAGCTCA TGGAATCTCA GTTACCAAGC TATTAGTACA AGGACTAGTA AGCCTAGAGG
541 AAGACAAATG GGCCAAACAT AGAAAATCA TCAATCCAGC TTTCCATCTA GAGAACCTAA
601 AGCATATGCT TCCAGCTTT TCCTTGAGCT GCAGTGGAGAT GCTGTGCAAA TGGGAAGATA
661 TTGTTTCAAT TAAGGGCTCA CATGAGATAG ATGTATGGCC TCACCTTGAA CAATTAAAGTA
721 GCGATGTGAT CTCTCGGACA GCTTTGGCA GTAACATTGAGA AGAAGGTAAGGAGGATTTG
781 AACCTCAGAA GGAAACAAGCT CAGTATTTC TAGAAGCTAT ACGCTCGTT TATATACAG
841 GCTGGAGGTT TTGCAACA AAAGGAAACA GAAGAATGAA GGAAGTTGAA AAGGATGTT
901 GGGCTCGAT AAAGGGCATT ATTGATAAAA GAGTGAAGGC AATGAAAGCA GGAGAGGCGA
961 GTAATGAGGA TCTACTTGGT ATATTGTTGG AATCTAATT TACAGAAGCT GAACACGATA
1021 GACACAAGGA TTCTGCGATG AGCATTGAAG AAGTCATTCA AGAATGCAAG TTATTCTATG
1081 TTGCTGCCA AGAAACTACA TCAGTGTGTC TTGTGTGGAC TCTAATATTG TTGAGTAGGC
1141 ATCAAGATTG CGAGAGCCGA GCCAGAGAAAG AGGTGTTCA AGTCTTTGGT AATCAGAAC
1201 CAGATTGTA CGGATTGAAT CGTCTAAAG TTGTGACAAT GATCTTGAT GAGTCTTAA
1261 GGCTATACTC CCCAGTAGTG TCACTAATCC GGCGGCCCTAA TGAGGATGCT ATATTAGAA
1321 ATGTATCTCT GCCAGAAGGT GTGCTACTCT CATTACAGT GATCTTATTA CACCAAGCTG
1381 AAGAGATATG GGGTAAAGAT GCAAAGAAGT TCAATCCAGA AGAGATTAGA GATGGAGCT
1441 CAAGTCAAC AAAGGGTCAA GTCACTTTT TTCCATTAC TTGGGGTCCC AGAATATGCA
1501 TCGGACAAAA TTTGCCATG TTAGAAGCAA AGACTGCTT GGCTATGATC CTACAACGCT
1561 TCTCATTGCA ACTGCTCCA TCTTATGCA ATGCTCCTCA GTCCATATTA ACTATGCAAC
1621 CCCAACATGG TGCTCCACTA ATTCTGACA AAATATAGTT GTTACTTTA AGCAGTGTCT
1681 TGTATATG CAGAGACTCC AAAATGTTA ATTAAGGCTT GTAGAACTGC CAAATGGAAC
1741 TTCATTGCA TTCGTGGTT GTAGATTGTT GTAATTGGAC AAGTATACTG TTTATTTAG
1801 AGTTTAAAGA AAAAAAAA

SEQ. ID. NO. 298

1 METVQIIITA SCAIIITLV VCIWRLVNWV WFRPKKLEKL LRKQGLKGNS YKILYGDMMKE
61 LSGMIKEANS KPMNLSDDIA PRLVPFFLDI IKKYGKKSFV WLGPKPPLVLI MDPPELIKELIF
121 SKYYLYQKPH GNPVTKLVLQ GLVSLEEDKW AKHRKIIINPA FHLEKLKHML PAFCLSCTEM
181 LCKWEDIVSI KGSHEIDVWP HLEQLSSDVI SRTAFGSNF EGKRIFELQK EQAQYFVEAI
241 RSVYIPGWRF LPTKRNRMRK EVEKDVRASI RGIIIDKRVKA MKAGEASNEED LLGILLESNF
301 TEAEQHRHKD SAMIEEVIQ ECKLFYVAGQ ETTSVLLWVT LILLSRHQDW QSRAREEVFO
361 VFGNQKPDFD GLNRLKVVTM ILYESLRLYS PVVSLIRPN EDAILGNVSL PEGVLLSLPV
421 ILLHHDEEIW GKDAKKFNPE RERDGVSSAT KGQVTFPPFT WGPRICIGQN FAMLEAKTAL
481 AMILQRFSFE LSPSYAHAPQ SILTMQPQHG APLILHKG

Figure 150: Amino Acid Identity of Group Members

Group 1

AQLAINLVTSMGLGHLLHHFTWAPPGVNPEDIDLEESPGTVTVMKNPIQAIPTPRLPAHLYGRVPVDM	SEQ ID No.: 2 D58-BG7 (98.5)
AQLAINLVTSMGLGHLLHHFTWAPPGVNPEVIDLEESPGTVTVMKNPIQAIPTPRLPAHLYGRVPVDM	SEQ ID No.: 4 D58-AB1

Group 2

QLAINLVTSMGLGHLFILHGLRPRGLTRRILTWRRALEQ	SEQ ID No.: 8 D58-BE4
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Group 3

EGLAVRMVALSLGCIIQCFDWQRIGEELVDMTEGTGLTPKAQPLVAKCSPRPKMANLLSQI	SEQ ID No.: 10 D56-AH7 (93.5)
EGLAIRMVALSLGCIIQCFDWQRIGEGLVDKTEGTGLTPKAQPLVAKCSPRPIMANLLSQI	SEQ ID No.: 12 D13a-5

Group 4

IGFATLVTHLTFGRLLQGFDFSKPSNTPIDMTEGVGVTLPKVNVQEVVLITPRLPSKLYLF	SEQ ID No.: 14 D56-AG10 (93.3)
INFATLVTHLTFGRLLQGFDFSTPSNTPIDMTEGVGVTLPKVNVQEVVLISPRLPSKLYVF	SEQ ID No.: 18 D34-62

Group 5

IILALPILGITLGRLVQNFEELLPPPQSKLDTTEKGQQFSLHILKHSTIVLKPRSF	SEQ ID No.: 20 D56-AA7 (98.2)
IILALPILGITLGRLVQNFEELLPPPQSKLDTTEKGQQFSLHILKHSTIVMKPRSF	SEQ ID No.: 144 D185-BD3 (96.4)
IILALPILGITLGRLVQNFEELLPPPQSKLDTTEKGQQFSLHILKHSTIVLKPRSC	SEQ ID No.: 22 D56-AE1

Group 6

IALGVASMEALASNLLYAFDWELPGMKKEDIDTNARPGITMHKKNELYLIPKNYL	SEQ ID No.: 24 D35-BB7 (92.8)
IALGVASMEALASNLLYAFDWELPYGVKENIDTNVRPGITMHKKNELCLIPRNYL	SEQ ID No.: 26 D177-BA7 (96.4)
IALGVASMEALASNLLYAFDWELPYGVKKEDIDTNVRPGIAMHKKNELCLVPKNYL	SEQ ID No.: 28 D56A-AB6 (94.6)
IALGVASMEALASNLLYAFDWELPYGVKKEDIDTNVRPGIAMHKKNELCLVPKKLFINYIGTWISC	SEQ ID No.: 30 D144-AE2

Group 7

ISFGLANAYLPLAQQLLYHFDWELPTGIKPSDLTLTELVGVTAAARKSDLYLVATPYQPPQN	SEQ ID No.: 32 D56-AG11 (93.3)
ISFGLANAYLPLAQQLLYHFDWKLPAGIEPSDLTLTELVGVTAAARKSDLYLVATPYQPPQK	SEQ ID No.: 34 D179-AA1

Group 8

MLFGLANVGQPLAQQLLYHFDWKLPNGQSHENFDMTESPGISATRKDDLVLIAATPYDSY	SEQ ID No.: 36 D56-AC7 (91.2)
MLFGLANVGQPLAQQLLYHFDWKLPNGQTHQNFDMTESPGISATRKDDLILIATPAHS	SEQ ID No.: 38 D144-AD1

Group 9	LLFGLVNVGHPLAQQLLYHFDWKTLPGISSLSDSFDMTETDGVTAGRKDDLCLIATPFGLN	SEQ ID No.:40 D144-AB5
Group 10	MSFGLVNTGHPLAQQLYFFDWKFPHKVNAADFHTTETSRVFAASKDDLYLIPTNHMEQE MSFGLVNTGHPLAQQLYCFDWKLPDFKVNAANDFRTTETSRVFAASKDDLYLIPTNHREQE	SEQ ID No.:42 D181-AB5 (89.8) SEQ ID No.:44 D73-AC9
Group 11	MQFGLALVTIPLAHLLHNFDWKLPEGINARDLDMTEANGISARREKDLYLIATPYVSPLD	SEQ ID No.:46 D56-AC12
Group 12	MTYALQVEHLMMAHLIQGFNYRTPDEPLDMKEGAGITIRKVNPKVIITPRLAPELY MTYALQVEHLMMAHLIQGFNYKTPNDEALDMKEGAGITIRKVNPKVELIIAPRLAPELY MTYALQVEHLMMAHLIQGFNYKTPNDEALDMKEGAGITIRKVNPKVELIIAPRLAPELY MTYALQVEHLMMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVNPKVELIIAPRLAPELY MTYALQVEHLMMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVNPKVELIIAPRLAPELY MTYALQVEHLMMAHLIQGFNYRTPNDEPLDMKEGAGITIRKVNPAELIIAPRLAPELY MTYALQVEHLTIAHLLIQGFNYKTPNDEPLDMKEGAGLTIRKVNPKVELIIAPRLAPELY MTYALQVEHLTIAHLLIQGFNYKTPNDEPLDMKEGAGLTIRKVNPKVELIIAPRLAPELY	SEQ ID No.:48 D58-AB9 (89.6) SEQ ID No.:50 D56-AG9 (98.2) SEQ ID No.:52 D56-AG6 (94.8) SEQ ID No.:54 D35-BG11 (98.3) SEQ ID No.:56 D35-42 (98.3) SEQ ID No.:58 D35-BA3 (84.5) SEQ ID No.:60 D34-57 (98.3) SEQ ID No.:62 D34-52
Group 13	YSLGLKVIRVTLANMLHGFWNLPEGMKPEDISVEEHYGLTHPKFPVPVILESRLLSPIT	SEQ ID No.:66 D56-AD10
Group 14	YSLGIRIIIRATLANLLHGFWNLPEGMSPEDISMEEIYGLITHPKVALDVMMEPRLPNHLYK	SEQ ID No.:68 D56-AA11
Group 15	INFSIPLVELALANLLFHYNWSLPEGMLAKDVMEEALGITMHKKSPCLVASHYTC INFSIPLVELALANLLFHYNWSLPEGMLPKDVMEEALGITMHKKSPCLVASHYNLL	SEQ ID No.:70 D177-BD5 (94.7) SEQ ID No.:84 D177-BD7
Group 16	MQLGLYALEMAVAHLLCFTWELPDGMKPSELKMDDIFGLTAPRANRLVAVPSPRLLCPYL MQLGLYALEMAVAHLLHCFTWELPDGMKPSELKMDDIFGLTAPRANRLVAVPTPRLLCPYL MQLGLYALEMAVAHLLHCFTWELPDGMKPSELKMDDIFGLTAPKANRLVAVPTPRLLCPYL	SEQ ID No.:74 D58-BC5 (96.7) SEQ ID No.:76 D58-AD12 (98.4) SEQ ID No.:72 D56A-AG10
Group 17	MLWSASIVRVSYLTCIYRFQVYAGSVFRVA	SEQ ID No.:78 D56-AC11

|
 MLWSASIVRVSYLTCIYRFQVYAGSVSRVA (96.7)
 SEQ ID No.:88 D56-AD6F

Group 18
 QNFAMLEAKMAMALILQHYAFELSPSYAHAPHTIITLQPQHGA
 PLILRKL SEQ ID No.:90 D73A-AD6

Group 19
 QNFAILEAKMAIAMILQRFSELS
 PSYTHSPYT
 VVTLKPKYGA
 PLIMHRL SEQ ID No.:96 D70A-AB5
 (72.0)
 QNFAMLEAKMALS
 MILQRFSELS
 PSYAHAPQS
 ILTVQPQYGA
 PLIFHKL SEQ ID No.:100 D70A-AB8
 (82.0)
 INFAMTEAKMAMAMILQRFSELS
 PSYTHAPQS
 VITMQPQYGA
 PLILHKL SEQ ID No.:102 D70A-BH2
 (98.0)
 INFAMAEAKMAMAMILQRFSELS
 PSYTHAPQS
 VITMQPQYGA
 PLILHKL SEQ ID No.:104 D70A-AA4
 (70.0)
 QNFAMMEAKMAVAMILHKFS
 FELSPSYTHAPFA
 IVTIH
 PQYGA
 PLLMRRL SEQ ID No.:108 D70A-BA9
 (98.0)
 QNFAMMEAKMAVAMILQKFS
 FELSPSYTHAPFA
 IVTIH
 PQYGA
 PLLMRRL SEQ ID No.:106 D70A-BA1

Group 20
 QNFAMLEAKMAMAMILKTYAFELSPSYAHAPHPLLQPQYGA
 QLILYKL SEQ ID No.:110 D70A-BD4

Group 21
 YSMGLKAIQASLANLLHGFNW
 SLPDNMT
 PEDLN
 MDEIFGLSTPKKFPLATVIE
 PRLSPKLYSV SEQ ID No.:112 D181-AC5
 (96.8)
 YSLGLKEI
 QASLANLLHGFNW
 SLPDNMT
 PEDLN
 MDEIFGLSTPKKFPLATVIE
 PRLSPKLYSV SEQ ID No.:114 D144-AH1
 (96.8)
 HSLGLKVI
 QASLANLLHGFNW
 SLPDNMT
 PEDLN
 MDEIFGLSTPKKFPLATVIE
 PRLSPKLYSV SEQ ID No.:116 D34-65

Group 22
 LCFPCLISSYILALNVNLYHNFLQISPSISY SEQ ID No.:118 D35-BG2

Group 23
 SGLAQCVVGLALATLVQC
 FEWKRV
 SEEVDL
 TEGKGLT
 MPKPEPL
 MARCEARD
 IFHKVL
 SEIS SEQ ID No.:120 D73A-AH7

Group 24
 IGLATV
 HVNLML
 ARM
 IQE
 FEWS
 SAY
 PEN
 RKV
 DLLRN
 WNL
 LLW SEQ ID No.:136 D185-BG2
 (77.5)
 IGLATV
 HVNLML
 ARM
 IQE
 FEWS
 SAY
 PEN
 RKV
 DFT
 EKLEFT
 VVM
 KNPLRA
 KV
 PRMQVV SEQ ID No.:122 D58-AA1
 (98.2)
 IGLATV
 HVNLML
 ART
 IQE
 FEWS
 SAY
 PEN
 RKV
 DFT
 EKLEFT
 VVM
 KNPLRA
 KV
 PRMQVV SEQ ID No.:134 D185-BC1

Group 25

YALAMLHLEYFVANLVWHFRWEAVEGDDVDLSEKLEFTVVMKNPLRARICPRVNSI

SEQ ID No.:124 D73A-AE10

Group 26

QQVGLLRTTIFIASLLSEYKLKPRSHQKQVELTDLNPAWLHSIKGELLVDAIPRKKAAF

SEQ ID No.:126 D56A-AC12

Group 27

ITFAKFVNELALARLMFHFDSPKGVKHEDLDVEEAAGITVRRKFPLLAVALATPCS

SEQ ID No.:128 D177-BF7

(98.2)

ITFAKFVNELALARLMFHFDSPKGVKHADLDVEEAAGITVRRKFPLLAVALATPCS

SEQ ID No.:140 D185-BD2

Group 28

QRYAINHMLFIALFTALIDFKRHKTDGCDIAIYIPTIAPKDDCKVFLSQRCTRFPSFS

SEQ ID No.:130 D73A-AG3

Group 29

MSFGLANVLPLAQQLLYHFDWKLPTGIKPRDLDDLTELSGITIARKGDLYLNATPYQPSRE

SEQ ID No.:132 D70A-AA12

(80.0)

ISFGLANVYLPLAQQLLYHFDWKLPTGINSSDLMTESSGVTCAKSDLYLTATPYQLSQE

SEQ ID No.:86 176-BF2

Group 30

QNFAMLEAKTTLAMILQRFSFELSPSYAHAPQSIITCNPSMVLHLFCIKYSLLLSSVSFYVKHESKMLRLVELQNGNAFALVHCRLL

Group 31

ADMGLRAVSLALGALIQCFDWQIEEAESLEESYNNSRMTMQNKPLKVVCCTPREDLGQLLSQL

SEQ ID No.:148 D176-BB3

Group 32

MNYSLQVEHLSIAHMIQGFSFATTNEPLDMKQGVGLTPKKTDVEVLITPRLPPTLYQY

SEQ ID No.:6 D186-AH4

The percentage identity between most related pairs is noted in (0.0%). Each group had at least 70% identity to another group member. Group 19 contained the lowest percentage identity at 70.0%.

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 1

D58-BG7	GCACAACTTGCATCAACTTGGTCACATCTATGTGGGTCATTGGCATCATTTCACA	SEQ ID No 1
D58-AB1	GCACAACTTGCATCAACTTGGTCACATCTATGTGGGTCATTGGCATTTACG	SEQ ID No 3
D58-BE4	GCACAACTTGCATCAACTTGGTCACATCTATGTGGGTCATTGGT-CATCATTTACA	SEQ ID No 7

D58-BG7	TGGGCTCCGCCCGGGGGTAACCCGGAGGATATTGACTTGGAGGAGGCCCTGAAACA	
D58-AB1	TGGGCTCCGCCCGGGGGTAACCCGGAGGATATTGACTTGGAGGAGGCCCTGAAACA	
D58-BE4	TGGGCTCCGCCCGGGGGTAACCCGGAGGATATTGACTTGGAGGAGGCCCTGAAACA	

D58-BG7	GTAACCTACATGAAAATCCAATACAAGCTATTCCAACCTCAAGATTGCCACACTTG	
D58-AB1	GTAACCTACATGAAAATCCAATACAAGCTATTCCAACCTCAAGATTGCCACACTTG	
D58-BE4	GTAACCTACATGA-----	

D58-BG7	TATGGACGTGTGCCAGTGGATATGTAA	
D58-AB1	TATGGACGTGTGCCAGTGGATATGTAA	
D58-BE4	-----	

PERCENT IDENTITY OF GROUP 1

	D58-BG7	D58-BE4	D58-AB1	
D58-BG7	***	96.2	98.1	SEQ ID No 1
D58-BE4	***	94.0	***	SEQ ID No 7
D58-AB1	***	***	***	SEQ ID No 3

ALIGNMENT OF GROUP 2

D56-AH7	GAAGGATTGGCTTTCGAATGGTTGCCTTGTCAATTGGGATGATTATTCAATGTTTGAT	SEQ ID No 9
D13a-5	GAAGGATTGGCTTTCGAATGGTTGCATTGTCAATTGGGATGATTATTCAATGCTTGAT	SEQ ID No 11

D56-AH7	TGGCACACGAATCGCGAAGAATTGGTTGATATGACTGAAGGAACGGACTTACTTGCCT	
D13a-5	TGGCACACGACTGGGAAGGATTGGTGTAAAGACTGAAGGAACGGACTTACTTGCCT	

D56-AH7	AAAGCTCAACCTTGGTGGCCAAGTGTAGCCCACGACCTAAATGGCTAATCTCTCTCT	
D13a-5	AAAGCTCAACCTTGTGGCCAAGTGTAGCCCACGACCTATAATGGCTAATCTCTCTCT	

D56-AH7	CAGATTGAA	
D13a-5	CAGATTGA	

PERCENT IDENTITY OF GROUP 2

	D56-AH7	D13a-5	
D56-AH7	***	93.7	SEQ ID No 9
D13a-5	***	***	SEQ ID No 11

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 3

D56-AG10	ATAGGTTTGCAGCTTACTGACACATCTGACTTTGGCGCTTGCTCAAGGTTTGAT	SEQ ID No 13
D35-33	ATAGGCTTGCAGCTTACTGACACATCTGACTTTGGCGCTTGCTCAAGGTTTGAT	SEQ ID No 15
D34-62	ATAAATTTCGGCATTTAGTGACACATCTGACTTTGGCGCTTGCTCAAGGTTTGAT	SEQ ID No 17
	*** *****	*****
D56-AG10	TTTAGTAAGCCATCAAACACGCCAATTGACATGACAGAAGGCCTAGGCCTACTTGCCT	
D35-33	TTTAGTAAGCCATCAAACACGCCAATTGACATGACAGAAGGCCTAGGCCTACTTGCCT	
D34-62	TTTAGTAAGCCATCAAACACGCCAATTGACATGACAGAAGGCCTAGGCCTACTTGCCT	
	*****	*****
D56-AG10	AAGGTTAACATCAAGTTGAAGTTCTAATTACCCCTCGTTACCTCTAAAGCTTTATTTGA	
D35-33	AAGGTTAACATCAAGTTGAAGTTCTAATTACCCCTCGTTACCTCTAAAGCTTTATTTGA	
D34-62	AAGGTTAACATCAAGTGGAAAGTTCTAATTAGCCCTCGTTACCTCTAAAGCTTTATGTATCTGA	
	*****	*****

PERCENT IDENTITY OF GROUP 3

	D56-AG10	D35-33	D34-62	
D56-AG10	***	98.9	95.1	SEQ ID No 13
D35-33		***	94.4	SEQ ID No 15
D34-62			***	SEQ ID No 17

ALIGNMENT OF GROUP 4

D56-AA7	ATTATACATTGCCAATTCTTGGCATCATTGGGACGTTGGTCAGAACCTTGAG	
D56-AE1	ATTATACATTGCCAATTCTTGGCATCATTGGGACGTTGGTCAGAACCTTGAG	
D185-BD3	ATTATCCTTGCACTGCCAATTCTTGGCATCATTGGGACGCTGGTGCAGAACCTTGAG	
	*****	*****
D56-AA7	CTGTTGCCCTCTCCAGGCCAGTCGAAGCTCGACACACAGAGAAAGGTGGACAGTCAGT	
D56-AE1	CTGTTGCCCTCTCCAGGCCAGTCGAAGCTCGACACACAGAGAAAGGTGGACAGTCAGT	
D185-BD3	TTGTTGCCCTCTCCAGGCCAGTCGAAGCTCGACACACAGAGAAAGGCCGGCAATTCTAGT	
	*****	*****
D56-AA7	CTCCACATTGAAAGCATTCACCATTGTGTTGAACCAAGGTCTTCTGA	
D56-AE1	CTCCATATTGAAAGCATTCACCATTGTGTTGAACCAAGGTCTTCTGA	
D185-BD3	CTGCACATTGAAAGCATTCACCATTGTGATGAAACCAAGATCTTTTAA	
	**	*****

PERCENT IDENTITY OF GROUP 4

	D56AA7	D56-AE1	D185-BD3	
D56AA7	***	98.2	87.7	SEQ ID No 19
D56-AE1		***	87.1	SEQ ID No 21
D185-BD3			***	SEQ ID No 143

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 5

D56A-AB6	ATTCGACTTGGGTTGCATCCATGAACTTGCTTGTCAAATCTCTTATGCATTTGAT	SEQ ID No 27			
D35-BB7	ATTCGACTTGGGTTGCATCAATGAACTTGCTTGTCAAATCTCTTATGCATTTGAT	SEQ ID No 23			
D177-BA7	ATTCGACTTGGGTTGCATCCATGAACTTGCTTGTCAAATCTCTTATGCATTTGAT	SEQ ID No 25			
D144-AE2	ATTCGACTTGGGTTGCATCCATGAACTTGCTTGTCAAATCTCTTATGCATTTGAT	SEQ ID No 29			

D56A-AB6	TGGGAGTTGCCATTATGGAGTAAAAAGAGACATCGACACAAACGTTAGGCCGGAATT				
D35-BB7	TGGGAGTTACCTTTGGAAATGAAAAAGAGACATTGACACAAACGCCAGGCCGGAATT				
D177-BA7	TGGGAGTTACCTTACCGAGTAAAAAGAGAACATTGACACAAATGTCAGGCCGGAATT				
D144-AE2	TGGGAGTTGCCATTATGGAGTAAAAAGAGACATCGACACAAACGTTAGGCCGGAATT				

D56A-AB6	GCCATGCACAAGAAAAACGAACCTTGCCCTGTCCCAAAAAA-TTATTTATAA-----				
D35-BB7	ACCATGCATAAGAAAAACGAACCTTATCTTATCCTTAACTTATCTATAG-----				
D177-BA7	ACCATGCATAAGAAAAACGAACCTTGCCCTATCCCTAGAAA-TTATCTATAG-----				
D144-AE2	GCCATGCACAAGAAAAACGAACCTTGCCCTGTCCCAAAAAAATTATTTATAAATTAT				

D56A-AB6	-----				
D35-BB7	-----				
D177-BA7	-----				
D144-AE2	ATGGGACGTGGATCTCATGCTAG				
<u>PERCENT IDENTITY OF GROUP 5</u>					
	D56A-AB6	D35-BB7	D144-AE2	D177-BA7	
D56A-AB6	***	90.6	97.1	91.8	SEQ ID No 27
D35-BB7	***		87.7	93.0	SEQ ID No 23
D144-AE2			***	88.9	SEQ ID No 29
D177-BA7				***	SEQ ID No 25

ALIGNMENT OF GROUP 6

D56-AG11	ATTCGTTGGTTAGCTAATGCTTATTGCCATTGGCTCAATTACTTATCACCTTGAT	
D179-AA1	ATTCGTTGGCTTAGCTAATGCTTATTGCCATTGGCTCAATTACTTATCACCTTGAT	

D56-AG11	TGGGAACCTCCCACGGAAATCAAACCAAGCGACTTGGACTTGACTGAGTTGGGAGTA	
D179-AA1	TGGGAACCTCCCACGGAAATCAAACCAAGCGACTTGGACTTGACTGAGTTGGGAGTA	

D56-AG11	ACTGCCGCTAGAAAAAGTGACCTTTACTTGGGTGGACTCCTTATCACCTCTAAACTGA	
D179-AA1	ACTGCCGCTAGAAAAAGTGACCTTTACTTGGGTGGACTCCTTATCACCTCTAAACTGA	

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

PERCENT IDENTITY OF GROUP 6

	SEQ ID No 31	SEQ ID No 33
D56-AG11	D56-AG11	D179-AA1
D56-AG11	***	95.6
D179-AA1	***	SEQ ID No 31
		SEQ ID No 33

ALIGNMENT OF GROUP 7

D56-AC7	ATGCTATTTGGTTTAGCTAATGGACAACCTTACGTCAGTTACTTATCACTTCGAT	SEQ ID No 35
D144-AD1	ATGCTATTTGGTTTAGCTAATGGACAACCTTACGTCAGTTACTTATCACTTCGAT	SEQ ID No 37
D56-AC7	TGGAAACTCCCTAATGGACAAAGCTCATGGAATTTCGACATGACTGAGTCACCTGGATT	
D144-AD1	TGGAAACTCCCTAATGGACAAACTCACCATAATTTCGACATGACTGAGTCACCTGGATT	
D56-AC7	TCTGCTACAGAAAGGATGATCTGTTGATTCCACTCCCTATGATCTTATTAA	
D144-AD1	TCTGCTACAGAAAGGATGATCTTATTGATTGCCACTCTGCTATCTGATCTTATTAA	Deleted:
	*****	*****

PERCENT IDENTITY OF GROUP 7

	D144-AD1	D56-AC7
D144-AD1	***	94.3
D56-AC7	***	SEQ ID No 37
		SEQ ID No 35

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ALIGNMENT OF GROUP 9

D181-AB5	ATGCGTTGGTTAGTTAACACTGGGCATCCTTAGCTCAGTTGCTCTATTCTTGAC	SEQ ID No 41
D73-AC9	ATGCGTTGGTTAGTTAACACAGGGCATCCTTAGCCAGTTGCTCTATTGCTTGAC	SEQ ID No 43
D181-AB5	TGGAAATTCCCTCATAGGTTAATGCAGCTGATTTTCAACTACTGAAACAAGTAGAGTT	
D73-AC9	TGGAAACTCCCTGACAAGGTTAATGCAAATGATTTTCGCACTACTGAAACAAGTAGAGTT	
D181-AB5	TTTGCAGCAAGCAAAGATGACCTCTACTTGATTCCAACAAATCACATGGAGCAAGAGTAG	
D73-AC9	TTTGCAGCAAGCAAAGATGACCTCTACTTGATTCCACAAATCACAGGGAGCAAGAATAG	
	*****	*****

PERCENT IDENTITY OF GROUP 9

	D181-AB5	D73-AC9
D181-AB5	***	92.8
D73-AC9	***	SEQ ID No 41
		SEQ ID No 43

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FIGURE 151: COMPARISON OF SEQUENCE GROUPS

ALIGNMENT OF GROUP 11

D58-AB9	ATGACTTATGCATTGCAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 47
D56-AG9	ATGACTTATGCATTGCAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 49
D35-BG11	ATGACTTATGCATTGCAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 53
D34-25	ATGACTTATGCATTACAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 63
D35-BA3	ATGACTTATGCATTGCAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 57
D34-52	ATGACTTATGCATTACAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 61
D56-AG6	ATGACTTATGCATTGCAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 51
D35-42	ATGACTTATGCATTGCAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 55
D34-57	ATGACTTATGCATTACAAGTGGAACACCTAACATGGCACATTGATCCAGGGTTCAAT	SEQ ID No 59

D58-AB9	TACAGAACTCCAATGATGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D56-AG9	TACAAAACCTCAAATGACGAGGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D35-BG11	TACAGAACTCCAATGACGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D34-25	TACAAAACCTCAAATGACGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D35-BA3	TACAGAACTCCAATGACGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D34-52	TACAAAACCTCAAATGACGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D56-AG6	TACAAAACCTCAAATGACGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D35-42	TACAGAACTCCAATGACGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	
D34-57	TACAAAACCTCAAATGACGAGCCCTGGATATGAAGGAAGGTGCAGGCATAACTATACGT	

D58-AB9	AAGGTAATCCTGTGAAAGTGATAATTAGCCCTCGCTGGCACCTGAGCTTTATTAA	
D56-AG9	AAGGTAATCCTGTGAAACTGATAATTAGCCCTCGCTGGCACCTGAGCTTTATTAA	
D35-BG11	AAGGTAATCCTGTGAAACTGATAATTAGCCCTCGCTGGCACCTGAGCTTTATTAA	
D34-25	AAAGGTAATCCTGTAGAAGTGACAATTAGCCCTCGCTGGCACCTGAGCTTTATTAA	
D35-BA3	AAAGGTAATCCTGCGGAACTGATAATTAGCCCTCGCTGGCACCTGAGCTTTATTAA	
D34-52	AAAGGTAATCCTGTAGAAGTGACAATTAGCCCTCGCTGGCACCTGAGCTTTATTAA	
D56-AG6	AAAGGTAATCCAGTGGAAATTGATAATAACGCCCTGGCACCTGAGCTTTACTAA	
D35-42	AAAGGTAATCCTGTGAAACTGATAATTAGCCCCC---TGGCACCTGAGCTTTATTAA	
D34-57	AAAGGTAATCCTGTAGAAGTGACAATTAGCCCTCGCTGGCACCTGAGCTTTATTAA	
** ***** * *** *** * * * * *****		

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

PERCENT IDENTITY OF GROUP 11

	D58-AB9	D56-AG6	D35-BG11	D35-42	D35-BA3	D34-57	D34-25	D34-52
D58-AB9	*** 93.8	93.2 94.3	90.8 93.2	90.9 92.0	91.5	SEQ ID No 47		
D56-AG9	***	96.6 97.2	94.2 96.6	91.5 92.6	92.0	SEQ ID No 49		
D56-AG6		*** 93.8	90.2 92.6	90.3 90.9	90.3	SEQ ID No 51		
D35-BG11		***	97.1 99.4	90.9 92.0	91.5	SEQ ID No 53		
D35-42			*** 96.5	87.3 88.4	87.9	SEQ ID No 55		
D35-BA3				*** 90.3	91.5 90.9	SEQ ID No 57		
D34-57					*** 98.9 98.3	SEQ ID No 59		
D34-52					*** 99.4	SEQ ID No 61		
D34-25					***	SEQ ID No 63		

ALIGNMENT OF GROUP 14

D177-BD7	ATTAATTTCAATACCACCTGGTGGAGCTTGACTTGCTAATCTATTGTTCATTTATAAT	SEQ ID No 83
D177-BD5	ATTAATTTCAATACCACCTGGTGGAGCTTGACTTGCTAATCTATTGTTCATTTATAAT	SEQ ID No 69
D177-BD7	TGGTCACCTCCCTGAGGGATGCTACCTAAGGATGTTGATATGGAGAACCTTGGGATT	
D177-BD5	TGGTCACCTCCCTGAAGGGATGCTAGTAAGGATGTTGATATGAAAGAACCTTGGGATT	
D177-BD7	ACCATGCACAAGAAATCTCCCCCTTGTAGTAGCTCTCATTTAACTTGTGTGA	
D177-BD5	ACCATGCACAAGAAATCTCCCCCTTGTAGTAGCTCTCATTTAACTTGTGTGA--	

PERCENT IDENTITY OF GROUP 14

	D177-BD7	D177-BD5
D177-BD7	***	96.0
D177-BD5	***	SEQ ID No 69

ALIGNMENT OF GROUP 15

D56A-AG10	ATGCAACTGGCTTATGCATTGAAATGGCTGGCCATCTCTCATGGTTACT	SEQ ID No 71
D58-AD12	ATGCAACTGGCTTATGCATTGAAATGGCTGGCCATCTCTCATGGTTACT	SEQ ID No 75
D58-BC5	ATGCAACTGGCTTATGCATTAGAAATGCCAGTGGCCATCTCTGGTTACT	SEQ ID No 73
D56A-AG10	TGGGAATTGCCAGATGGTATGAAACCAAGTGAGCTAAATGGATGATTTGGACTC	
D58-AD12	TGGGAATTGCCAGATGGTATGAAACCAAGTGAGCTAAATGGATGATTTGGACTC	
D58-BC5	TGGGAATTGCCAGATGGTATGAAACCAAGTGAGCTAAATGGATGATTTGGACTC	
D56A-AG10	ACTGCTCCAAAAGCTAATCGACTCGTGGCTGCTACTCACGTTGTGTCCCCCTT	
D58-AD12	ACTGCTCCAAAAGCTAATCGACTCGTGGCTGCTACTCACGTTGTGTCCCCCTT	
D58-BC5	ACTGCTCCAAAAGCTAATCGACTCGTGGCTGCTACTCACGTTGTGTCCCCCTT	

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FIGURE 151: COMPARISON OF SEQUENCE GROUPS

D56A-AG10	TATTA
D58-AD12	TATTA
D58-BC5	TATTA *****

PERCENT IDENTITY OF GROUP 15

	D56A-AG10	D58-AD12	D58-BC5
D56A-AG10	***	99.5	95.7
D58-AD12		***	96.2
D58-BC5			***

ALIGNMENT OF GROUP 16

D56-AD6	ATGCTTTGGAGTGCAGTATACTGCGCGTCAGCTACCTAACCTGTATTATAGATTCAA	SEQ ID No 87
D56-AC11	ATGCTTTGGAGTGCAGTATACTGCGCGTCAGCTACCTAACCTGTATTATAGATTCAA	SEQ ID No 77
D35-39	ATGCTTTGGAGTGCAGTATACTGCGCGTCAGCTACCTAACCTGTATTATAGATTCAA	SEQ ID No 79
D58-BH4	ATGCTTTGGAGTGCAGTATACTGCGCGTCAGCTACCTAACCTGTATTATAGATTCAA	SEQ ID No 81
D56-AD6	GTATATGCTGGGCTGTGTCAGAGTAGCATGA	
D56-AC11	GTATATGCTGGGCTGTGTCAGAGTAGCATGA	
D58-BH4	GTATATGCTGGGCTGTGTCAGAGTAGCATGA	

Deleted: 1
1

PERCENT IDENTITY OF GROUP 16

	D56-AC11	D56-AD6	D58-BH4	D35-39	
D56-AC11	***	98.7	98.7	98.7	SEQ ID No 77
D56-AD6		***	98.7	98.7	SEQ ID No 87
D58-BH4			***	98.7	SEQ ID No 81
D35-39				***	SEQ ID No 79

ALIGNMENT OF GROUP 17

D73A-AD6	CTGAATTTCATGTTAGAGGCAAAATGCCACTTGCAATTGATTCTACAAACACTATGCT	SEQ ID No 89
D70A-BA11	CTGAATTTCATGTTAGAGGCAAAATGCCACTTGCAATTGATTCTACAAACACTATGCT	SEQ ID No 91
D73A-AD6	TTTGGAGCTCTCCATCTTATGCACATGCTCCTCATACAATTATCCTGCAACCTCAA	
D70A-BA11	TTTGGAGCTCTCCATCTTATGCACACGCTCCTCATACAATTATCCTGCAACCTCAA	
D73A-AD6	CATGGTGCTCTTGTATTTGCGCAAGCTGTAG	
D70A-BA11	CATGGTGCTCTTGTATTTGCGCAAGCTGTAG	

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

PERCENT IDENTITY OF GROUP 17

D73A-AD6	***	99.3	SEQ ID No 89
D70A-BA11	***	***	SEQ ID No 91

ALIGNMENT OF GROUP 18

D70A-AB5	CAAAACTTCCGATTTGGAGCAAAATGGCTATAGCTATGATTCTACAAACGCTTC	SEQ ID No 95
D70A-AA8	CAAAACTTCCGATTTGGAGCAAAATGGCTATAGCTATGATTCTACAAACGCTTC	SEQ ID No 97
D70A-AB5	TTCGAGCTCTCCCATCTTATACACACTCCATACACTGTTGAAACCCAAA	
D70A-AA8	TTCGAGCTCTCCCATCTTATACACACTCCATACACTGTTGAAACCCAAA	
D70A-AB5	TATGGTGCCTCCCTAATAATGCACAGGCTGTAG	
D70A-AA8	TATGGTGCCTCCCTAATAATGCACAGGCTGTAG	

Deleted: 1

PERCENT IDENTITY OF GROUP 18

D70A-AB5	D70A-AA8
***	99.6
D70A-AA8	***

SEQ ID No 95
SEQ ID No 97

ALIGNMENT OF GROUP 19

D70A-AB8	CAAAATTGGCATGTTAGAACGAAAGATGGCTGTCTATGATCCTGCAACGCTTC	SEQ ID No 99
D70A-BH2	ATAAACTTGCATGACAGAACGGAAGATGGCTATGGCTATGATTCTGCAACGCTTC	SEQ ID No 101
D70A-AA4	ATAAACTTGCATGGCAGAACGGAAGATGGCTATGGCTATGATTCTGCAACGCTTC	SEQ ID No 103
D70A-AB8	TTTGAACGTCTCCGTCTTATGCACATGCCCTCAGTCCATTAAACCGT-CAGCCACAA	
D70A-BH2	TTTGAGCTATCTCCATCTTACACACATGCTCCACAGTCTGTAATAACTATGCAACCCAA	
D70A-AA4	TTTGAGCTATCTCCATCTTACACACATGCTCCACAGTCTGTAATAACTATGCAACCCAA	
D70A-AB8	TATGGTGCCTCCACTTATTTCCACAAGCTATAA	
D70A-BH2	TATGGTGCCTCTTATATGCACAAATTGTA	
D70A-AA4	TATGGTGCCTCTTATATGCACAAATTGTA	

Deleted: 1

PERCENT IDENTITY OF GROUP 19

D70A-AB8	D70A-AA4	D70A-BH2
***	77.8	77.8
D70A-AA4	***	99.3
D70A-BH2	***	***

SEQ ID No 99
SEQ ID No 101
SEQ ID No 103

ALIGNMENT OF GROUP 20

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

D70A-BA1	CAAAACTTGCAATGATGGAAGCAAAATGGCAGTAGCTATGATACTACAAAAATTTC	SEQ ID No 105
D70A-BA9	CAAAACTTGCAATGATGGAAGCAAAATGGCAGTAGCTATGATACTACATAAATTTC	SEQ ID No 107

D70A-BA1	TTTGAACATACCCCTCTTATACACATGTCCTTGCATTGACTATTGACTATTGACT	
D70A-BA9	TTTGAACATACCCCTCTTATACACATGTCCTTGCATTGACTATTGACTATTGACT	

D70A-BA1	TATGGTGCTCTCTGCTTATGCCAGACTTTAA	
D70A-BA9	TATGGTGCTCTCTGCTTATGCCAGACTTTAA	

PERCENT IDENTITY OF GROUP 20

	D70A-BA1	D70A-BA9	
D70A-BA1	***	99.4	SEQ ID No 105
D70A-BA9		***	SEQ ID No 107

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ALIGNMENT OF GROUP 22

D144-AH1	TATAGCTTGGGGCTCAAGGAGATTCAAGCTAGCTTAGCTAATCTTCTACATGGATTAAC	SEQ ID No 113
D34-65	CATAGCTTGGGGCTCAAGGTGATTCAAGCTAGCTTAGCTAATCTTCTACATGGATTAAC	SEQ ID No 115
D181-AC5	TATAGCATGGGCTCAAGGGATTCAAGCTAGCTTAGCTAATCTTCTACATGGATTAAC	SEQ ID No 111

D144-AH1	TGGTCATTGCCGTATAATATGACTCCTGAGGACCTAACATGGATGAGATTTGGCTC	
D34-65	TGGTCATTGCCGTATAATATGACTCCTGAGGACCTAACATGGATGAGATTTGGCTC	
D181-AC5	TGGTCATTGCCGTATAATATGACTCCTGAGGACCTAACATGGATGAGATTTGGCTC	

D144-AH1	TCTCACCTAAAAATTCCACTTGCTACTGTGATTGAGCCAAGACTTCACCAAAACTT	
D34-65	TCTCACCTAAAAATTCCACTTGCTACTGTGATTGAGCCAAGACTTCACCAAAACTT	
D181-AC5	TCTCACCTAAAAATTCCACTTGCTACTGTGATTGAGCCAAGACTTCACCAAAACTT	

D144-AH1	TACTCTGTTTGA	
D34-65	TACTCTGTTTGA	
D181-AC5	TACTCTGTTTGA	

PERCENT IDENTITY OF GROUP 22

	D34-65	D181-AC5	D144-AH1	
D34-65	***	98.4	99.0	SEQ ID No 115
D181-AC5	***	99.0		SEQ ID No 111
D144-AH1		***		SEQ ID No 113

|

ALIGNMENT OF GROUP 25

D58-AA1	TTGGGCTTGCACCGGTGATGTAATTGATGTTGGCCGAATGATTCAAGAATTGAA	SEQ ID No 121
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Deleted: 1

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

D185-BC1	TTGGGCTTGGCAACGGTGCATGTGAATTGATGTTGGCCGAACGATTCAAGAATTGAA	SEQ ID No 133
D185-BG2	TTGGGCTTGGCAACGGTGCATGTGAATTGATGTTGGCCGAACGATTCAAGAATTGAA	SEQ ID No 135
D58-AA1	TGGTCGCTTACCCGAAAATAGGAAAGTGGATTACTGAGAAATTGGAATTACTGTG	
D185-BC1	TGGTCGCTTACCCGAAAATAGGAAAGTGGATTACTGAGAAATTGGAATTACTGTG	
D185-BG2	TGGTCGCTTACCCGAAAATAGGAAAGTGGATT-ACTGAGAAATTGGAATTACTGTG	
D58-AA1	GATGAAAAATCCTTAAGAGCTAAGGTCAAGCCAAGAATGCAAGTGGTAA	
D185-BC1	GATGAAAAACCCCTTAAGAGCTAAGGTCAAGCCAAGAATGCAAGTGGTAA	
D185-BG2	GTA-----	

PERCENT IDENTITY OF GROUP 25

	D58-AA1	D185-BG2	D185-BC1	
D58-AA1	***	95.9	98.9	SEQ ID No 121
D185-BG2		***	95.1	SEQ ID No 135
D185-BC1			***	SEQ ID No 133

ALIGNMENT OF GROUP 28

D177-BF7	ATCACATTTGCTAAGTTGTGAATGAGCTAGCATGGCAAGATTAATGTCATTTGAT	SEQ ID No 127
D185-BD2	ATCACATTTGCTAAGTTGTGAATGAGCTAGCATGGCAAGATTAATGTCATTTGAT	SEQ ID No 139
D185-BE1	ATCACATTTGCTAAGTTGTGAATGAGCTAGCATGGCAAGATTAATGTCATTTGAT	SEQ ID No 137
D177-BF7	TTCTCGCTACCAAAAGGAGTTAACATGGGATTTGGACGTGGAGGAAGCTGCTGGATT	
D185-BD2	TTCTCGCTACCAAAAGGAGTTAACATGGGATTTGGACGTGGAGGAAGCTGCTGGATT	
D185-BE1	TTCTCGCTACCAAAAGGAGTTAACATGGGATTTGGACGTGGAGGAAGCTGCTGGATT	
D177-BF7	ACTGTTAGAGGAAGTTCCCCCTTTAGCCGTGCCACTCCATGCTCGTGA	
D185-BD2	ACTGTTAGAGGAAGTTCCCCCTTTAGCCGTGCCACTCCATGCTCGTGA	
D185-BE1	ACTGTTAGAGGAAGTTCCCCCTTTAGCCGTGCCACTCCATGCTCGTGA	

PERCENT IDENTITY OF GROUP 28

	D177-BF7	D185-BD2	D185-BE1	
D177-BF7	***	99.4	99.4	SEQ ID No 127
D185-BD2		***	98.8	SEQ ID No 139
D185-BE1			***	SEQ ID No 137

ALIGNMENT OF GROUP 30

FIGURE 151: COMPARISON OF SEQUENCE GROUPS

D70A-AA12	ATGTCATTGGTTAGCTAACCTTACTTACCATGGCTCAATTACTCTATCACTTGAC	SEQ ID No 131
D176-BF2	ATATCATTGGTTGGCTAATGTTATTGCCACTAGCTCAATTGTATATCATTTGAT	SEQ ID No 85
*** ***** * *** * *** * *** * *** * *** * *** * *** *		
D70A-AA12	TGGAAACTCCCAACCGGAATCAAGCCAAGAGACTTGGACTTGACCGAATTATCGGGAAATA	
D176-BF2	TGGAAACTCCCTACTGGAATCAATTCAAGTGACTGGACATGACTGAGTCGTCAGGAGTA	
***** * *** * *** * *** * *** * *** * *** * *** * *** * *** *		
D70A-AA12	ACTATTGCTAGAAAGGGTGACCTTACTAAATGCTACTCCTTATCAACCTTCTCGAGAGTAA	
D176-BF2	ACTTGCTAGAAAGAGTGATTATACTTGACTGCTACTCCATATCAACTTCTCAAGAGTGA	
*** * *** * *** * *** * *** * *** * *** * *** * *** * *** *		

PERCENT IDENTITY OF GROUP 30

	<u>D176-BF2</u>	<u>D70A-AA12</u>	
D176-BF2	***	77.0	SEQ ID No 85
D70A-AA12		***	SEQ ID No 131

FIGURE 152A: Alignment of Full Length Clones

		ExPERF		ExRxP		ExRxR		ExRxRxxP		ExRxRxxP		ExRxRxxP	
GROUP 1		EVLRLYPPGP	LLVPHENVED	CVVGSHYHPIK	GTRLFANVMK	LQRDPFLWSD	PDTDFPERFI	ATDIDFRGQY	YKYIPFGSGR	RSC	SEQ.	ID.	No.
D208-AD9	98.-8	EVLRLYPPGP	LLVPHENVED	CVVGSHYHPIK	GTRLFANVMK	LLRDPKLWPD	PDTDFPERFI	ATDIDFRGQY	YKYIPFGSGR	RSC	SEQ.	ID.	No.
D120-AH4	97.-6	EVLRLYPPGP	LLVPHENVED	CVVGSHYHPIK	GTRLFANVMK	LLRDPKLWPD	PDTDFPERFI	ATDIDFRGQY	YKYIPFGSGR	RSC	SEQ.	ID.	No.
D121-AA8	91.-6	EVLRLYPPGP	LLVPHENVED	CVVGSHYHPIK	GTRLFANVMK	LQRDPKLWSD	PDTDFPERFI	ATDIDFRGQY	YKYIPFGSGR	RSC	SEQ.	ID.	No.
D122-AF10	91.-6	EVLRLYPPGP	LLVPHENVED	CVVGSHYHPIK	GTRLFANVMK	LQRDPKLWSD	PDTDFPERFI	ATDIDFRGQY	YKYIPFGSGR	RSC	SEQ.	ID.	No.
D103-AH3	98.-8	KVLRLYPPGP	LLVPHENVKD	CVVGSHYHPIK	GTRLFANVMK	LQRDPKLWSN	PDKDFPERFI	ADIDFRGHH	YEFIGPGSGR	RSC	SEQ.	ID.	No.
D208-AC8	98.-8	KVLRLYPPGP	LLVPHENVKD	CVVGSHYHPIK	GTRLFANVMK	LQRDPKLWSN	PDKDFPERFI	ADIDFRGHH	YEFIGPGSGR	RSC	SEQ.	ID.	No.
D235-AB1	91.-6	KVLRLYPPGP	LLVPEHEYVKD	CVVGSHYHPIK	GTRLFANVMK	LQRDPKLWSN	PDKDFPERFI	ADIDFRGHH	YEFIGPGSGR	RSC	SEQ.	ID.	No.
GROUP 2		ExPERF		ExRxP		ExRxC		ExRxR		ExRxRxxP		ExRxRxxP	
D244-AD4	100.-0	ETLRLYPPVP	FLIPHEAVQD	CKVTGYHPIK	GTRLYINAWK	VHRDPETIWE	PEKTMPNRL	TSKANIDARG	QNFEFIPFGS	GRRSC	SEQ.	ID.	No.
D244-AB6	98.-8	ETLRLYPPVP	FLIPHEAVQD	CKVTGYHPIK	GTRLYINAWK	VHRDPETIWE	PEKTMPNRL	TSKANIDARG	QNFEFIPFGS	GRRSC	SEQ.	ID.	No.
D285-AA8	100.-0	ETLRLFPPVP	FLIPHEAVQD	CKVTGYHPIK	GTRLYINAWK	VHRDPETIWE	PEKTMPNRL	TSKANIDARG	QNFEFIPFGS	GRRSC	SEQ.	ID.	No.
D285-AB9	97.-6	ETLRLFPPVP	FLIPHEAVQD	CKVTGYHPIK	GTRLYINAWK	VHRDPETIWE	PEKTMPNRL	TSKANIDARG	QNFEFIPFGS	GRRSC	SEQ.	ID.	No.
D268-AE2		ETLRLYPPVP	FLIPHEAVQD	CKVTGYHPIK	GTRLYINAWK	VHRDSSEIWE	PEKTMPNRL	TSKANIDARG	QNFEFIPFGS	GRRSC	SEQ.	ID.	No.
GROUP 3		ExPERF		ExRxP		ExRxC		ExRxR		ExRxRxxP		ExRxRxxP	
D100A-AC3	97.-6	ETFRMYPAGP	LLVPHESSEE	TTVGGYRYVPG	GTMLLVIWIA	IHNDFPKLWDE	PRKKPERFE	GLEGVRDGYK	MMPFGSGRS	C	SEQ.	ID.	No.
D100A-BE2		ETFRMYPAGP	LLVPHESSEE	TTVGGYRYVPG	GTMLLVIWIA	IHNDFPKLWDE	PRKKPERFQ	GLDGVRDGYK	MMPFGSGRS	C	SEQ.	ID.	No.

FIGURE 152B: Alignment of Full Length Clones

GROUP 4		ExxRxxP		FxxPERF		Gx RxC	
D205-BG9 1.00 .0	ETMRLYTPIP LLLPHYSTKD C1VEGYDVPK HTMFLVNAWA IHRDPKYWEETMRLHPPVAP MLVPRECRED IKVAGYDVQK GTRVLVSVWT IGRDPTLWDE PEVKPERFH EKSIDVKGHD YELLPFGAGR RMC SEQ. ID. No.	313					
D205-BE9 1.00 .0	ETMRLYTPIP LLLPHYSTKD C1VEGYDVPK HTMFLVNAWA IHRDPKYWEETMRLHPPVAP MLVPRECRED IKVAGYDVQK GTRVLVSVWT IGRDPTLWDE PEVKPERFH EKSIDVKGHD YELLPFGAGR RMC SEQ. ID. No.	314					
D205-AH4 1.00 .0	ETMRLYTPIP LLLPHYSTKD C1VEGYDVPK HTMFLVNAWA IHRDPKYWEETMRLHPPVAP MLVPRECRED IKVAGYDVQK GTRVLVSVWT IGRDPTLWDE PEVKPERFH EKSIDVKGHD YELLPFGAGR RMC SEQ. ID. No.	315					
GROUP 5		ExxRxxP		FxxPERF		Gx RxC	
D259-AB9 1.00 .0	ETRLHPLGT MLAPHCATED CNVAGYDIQK GTTFLVNWT IGRDPKYWDR AQEFLPERFL ENIDMDGHN FAFLPFSGRR RRC SEQ. ID. No.	316					
D257-AE4 98 .8	ETRLHPLGT MLAPHCATED CNVAGYDIQK GTTFLVNWT IGRDPKYWDR AQEFLPERFL ENIDMDGHN FAFLPFSGRR RRC SEQ. ID. No.	317					
D147-AD3 98 .8	ETRLHPLGT MLAPHCATED CNVAGYDIQK GTTFLVNWT IGRDPKYWDR AQEFLPERFL ENIDMDGHN FAFLPFSGRR RRC SEQ. ID. No.	318					
GROUP 6		ExxRxxP		FxxPERF		Gx RxC	
D249-AEB 98 .8	EALRLHPPTP LMLPHRASAS VKIGGYDIPK GSIVHVNWA VARDPAWKN PLEFRERFL EEDVDMKGHD YRLLPFGAGR RVC SEQ. ID. No.	319					
D248-AA6 98 .8	EALRLHPPTP LMLPHRASAS VKIGGYDIPK GSIVHVNWA VARDPAWKN PLEFRERFL EEDVDMKGHD YRLLPFGAGR RVC SEQ. ID. No.	320					
GROUP 7		ExxRxxP		FxxPERF		Gx RxC	
D233-AG7 98 .8	ETRLHPLGT MLAPHCATED CNVAGYDIQK GTTFLVNWT IGRDPKYWDR AQEFLPERFL ENIDMDGHN FAFLPFSGRR RRC SEQ. ID. No.	321					
D224-BD11 100 .0	ETRLHPLGT MLAPHCATED CNVAGYDIQK GTTFLVNWT IGRDPKYWDR AQEFLPERFL ENIDMDGHN FAFLPFSGRR RRC SEQ. ID. No.	322					
D224-AF10 100 .0	ETRLHPLGT MLAPHCATED CNVAGYDIQK GTTFLVNWT IGRDPKYWDR AQEFLPERFL ENIDMDGHN FAFLPFSGRR RRC SEQ. ID. No.	323					
GROUP 8		ExxRxxP		FxxPERF		Gx RxC	
D105-AD6 100 .0	EVRLYPAGY V1NRMVTKET KLGNC1CLPAG VQJVLPTMILL QHDTEIWGDD AMEFNPREFS DGISKATKGK LVFPFSWGP RIC SEQ. ID. No.	324					
D215-AB5 95 .2	EVRLYPAGY V1NRMVTKET KLGNC1CLPAG VQJVLPTMILL QHDTEIWGDD AMEFNPREFS DGISKATKGK LVFPFSWGP RIC SEQ. ID. No.	325					
D135-AE1 100 .0	EVRLYPAGY A1NRMVTKET KLGNC1CLPAG VQJVLPTMILL QHDTEIWGDD AMEFNPREFS DGISKATKGK LVFPFSWGP RIC SEQ. ID. No.	326					

FIGURE 152C: Alignment of Full Length Clones

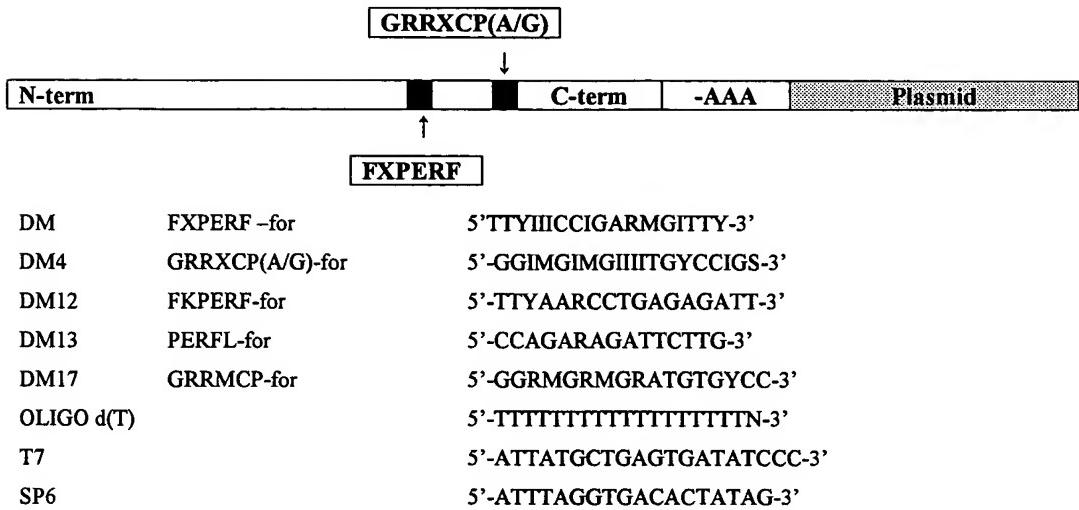
FIGURE 152D: Alignment of Full Length Clones

GROUP	ID	ExxRxxC		ExxRxxC		ExxRxxC	
		PERF	RXC	PERF	RXC	PERF	RXC
13	D209-AA10 100.0	ETLRLHPPVP LLLPRECREE TNINGTIPV KTKVMVNWA LGRDPKWND AETMPERFE QCSKDFVGNN FEYLPPFGGR RIC SEQ. ID. No. 342					
	D209-AA12 100.0	ETLRLHPPVP LLLPRECREE TNINGTIPV KTKVMVNWA LGRDPKWND AETMPERFE QCSKDFVGNN FEYLPPFGGR RIC SEQ. ID. No. 343					
	D209-AA10 100.0	ETLRLHPPVP LLLPRECREE TNINGTIPV KTKVMVNWA LGRDPKWND AETMPERFE QCSKDFVGNN FEYLPPFGGR RIC SEQ. ID. No. 344					
	D209-AA12 97.6	ETLRLHPPVP LLLPRECREE TNINGTIPV KTKVMVNWA LGRDPKWND AETMPERFE QCSKDFVGNN FEYLPPFGGR RIC SEQ. ID. No. 345					
	D90a-BB3	ETLRLHPPVP LLLPRECREE TNINGTIPV KTKVMVNWA LGRDPKWND AETMPERFE QCSKDFVGNN FEYLPPFGGR RIC SEQ. ID. No. 346					
GROUP	ID	ExxRxxC		ExxRxxC		ExxRxxC	
		PERF	RXC	PERF	RXC	PERF	RXC
14	D129-AD10 100.0	ETLRLHPPPIP LLIHETAEES TVSGYHIPIAK SHVIINSSFAI GRDKNSWEDP ETYKPSRFKL EGYPDFKGGN FEFIPFGSGR RSC SEQ. ID. No. 347					
	D104A-AE8	ETLRLHPPPIP LLIHETAEES TVSGYHIPIAK SHVIINSSFAI GRDKNSWEDP ETYKPSRFKL EGYPDFKGGN FEFIPFGSGR RSC SEQ. ID. No. 348					
GROUP	ID	ExxRxxC		ExxRxxC		ExxRxxC	
		PERF	RXC	PERF	RXC	PERF	RXC
15	D228-AH8 100.0	EIFRLYPPAP LLVPRESMEK TILEGEYEIRP RTIVHVNAWA IARDPEIWN PDEFIPERFL NSSIDYKGQD FELLPPFGAGR RGC SEQ. ID. No. 349					
	D228-AD7 100.0	EIFRLYPPAP LLVPRESMEK TILEGEYEIRP RTIVHVNAWA IARDPEIWN PDEFIPERFL NSSIDYKGQD FELLPPFGAGR RGC SEQ. ID. No. 350					
	D250-AC11 100.0	EIFRLYPPAP LLVPRESMEK TILEGEYEIRP RTIVHVNAWA IARDPEIWN PDEFIPERFL NSSIDYKGQD FELLPPFGAGR RGC SEQ. ID. No. 351					
	D247-AH1	EIFRLYPPAP LLVPRESMEK TILEGEYEIRP RTIVHVNAWA IARDPEIWN PDEFIPERFL NSSIDYKGQD FELLPPFGAGR RGC SEQ. ID. No. 352					
GROUP	ID	ExxRxxC		ExxRxxC		ExxRxxC	
		PERF	RXC	PERF	RXC	PERF	RXC
16	D128-AB7 98.8	EALRMRMAIP LLVPHMNLHD AKIGGFIDPA ESKILVNAWW LANNPASHWKK PEEFRPERFF EEEKHVEANG NDFRYLPFGV GRRSC SEQ. ID. No. 353					
	D243-AA2 97.7	EALRMRMAIP LLVPHMNLHD AKIGGLDIPA ESKILVNAWW LANNPASHWKK PEEFRPERFF EEEKHVEANG NDFRYLPFGV GRRSC SEQ. ID. No. 354					
	D125-AF11	ETLRLRMRMAIP LLVPHMNLHD AKIGGFIDPA ESKILVNAWW LANNPASHWKK PEEFRPERFF EEEKHVEANG NDFRYLPFGV GRRSC SEQ. ID. No. 355					

FIGURE 152E: Alignment of Full Length Clones

GROUP	17	ExxRxxP	SLIRRPNEDA	IIGNVSLPEG	VLLSLPVILL	HHDEEIWGGD	-KKFNPFRFR	DGVSSATKGQ	VTFVFFFTWGP	RIC SEQ.	ID. NO.	356
D284-AH5	86.7	ESLRLYSPVV	1	1	1	1	1	1	1	1	1	
D110-AF12		ESLRLYFPVV	TLDTRPKEDT	VLGDVSLPAG	VLLSLPVILL	HHDEEIWGGD	AKKFKPFRFR	DGVSSATKGQ	VTFVFFFTWGP	RIC SEQ.	ID. NO.	357

Figure 153: Cloning of Cytochrome P450 cDNA Fragments by PCR



I = DeoxyInosine; Y = C, T; M = A,C; R = A,G; S = C,G; N= A,T,C,G